Academic Achievement in a Mandatory EFL Program in the UAE: Limiting Conditions for Autonomous Motivation and Competence Perceptions

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Abstract

Many institutions around the world use the International English Language Testing System (IELTS) to assess test-takers' proficiency in English, including the United Arab Emirates (UAE), where a given Band score (or its equivalent) is required for direct entry to majors taught in English. However, despite the test's importance and despite being one of the most prosperous countries in the Middle East, scores on IELTS for UAE-based test-takers have consistently been amongst the lowest globally (IELTS: Test-Taker performance, 2021). In a step towards better understanding why, and guided by the academic achievement literature, the present exploratory study examines the relationship between grades and a small number of student characteristics at a higher education institute in the country. Two studies (N = 166 and N = 80) using the Academic Self-Regulation Questionnaire (SRQ-A; Ryan & Connell, 1989), the Perceived Competence Scale (PCS; Williams & Deci, 1996), and PISA's (Program for Student Assessment) Student Background Questionnaires (OPEC: Technical report, 2015) were conducted to measure students' autonomous and controlled motives, competence perceptions, and wealth, respectively. Results indicated that contrary to much of the relevant literature, participants' autonomous motives and wealth were negatively associated with grades while the relationship between perceived competence and grades was weaker than expected. Explanations for these findings along with their implications for future research are discussed.

***Keywords*:** achievement; motivation; competence; socio-economic status; grades

1.Introduction

Despite twelve years of studying English in public and private primary and secondary schools, many entrants into the UAE's federal institutions of higher education are unable to reach the prerequisite level of competence in English as a Foreign Language (EFL) to join their majors directly and instead must take further language training (Hatherley-Greene, 2012). Generally, greater resources are expected to facilitate better academic performance, and the UAE is one of the most prosperous countries in the world. Hence, there is a puzzle here: on the one hand, the average IELTS score for Emirati test-takers is amongst the lowest internationally; on the other, the UAE ranks highly in the human development index, provides its citizens with an excellent standard of living, puts great emphasis on education, and has the resources to pursue its vision of a well-educated populace. Why then is the UAE's performance in IELTS not amongst the *highest*?

In an attempt to answer this question, the current study focuses on the students themselves, which is held to be consistent with Hattie's (2003) assertion that: "it is what the students bring to the table that predicts academic achievement more than any other variable" (p. 1). Of course, 'what the students bring to the table' encompasses a very broad and diverse set of factors such as cognitive capacity, personality, and aptitude (Li, 2015; Richardson et al., 2012). However, without wishing to diminish their importance, the current study sets these aside and focuses instead on motivation and competence perceptions, which are held to be more malleable for adult learners (Hensley et al., 2021). In addition to these personal, psychological variables, the study includes a social-contextual variable, socio-economic status (SES), often neglected in the socio-psychological literature despite being one of the most salient predictors of academic achievement (Gorard et al., 2012). It is hoped that by examining the relationship that student motives, competence perceptions, and SES have with one another and with academic performance in a mandatory EFL program in the UAE, the current study can take a step towards casting some light on the puzzle outlined above.

2.Literature review

2.1.Personal Variables: Student Motives and Competence Perceptions

Self determination theory (SDT; Deci & Ryan, 2000) is a theory of human motivation in which the satisfaction of three basic needs plays a central role. The extent to which one of those basic needs, autonomy, is satisfied is the basis upon which the theory distinguishes various types of motives. When motives are more self-determined and volitional, they are described as autonomous, a collective term describing a combination of intrinsic and identified behavioral

regulation forms. Unlike intrinsic regulation, where the behaviour brings its own reward, the outcome of the behaviour characterised by identified motives is extrinsic so that the action is undertaken not for enjoyment, but for the sake of the valued outcome(s) it delivers. In the SDT-related literature, autonomous motives are positively associated with a number of adaptive outcomes, including the deep processing of information (Vansteenkiste et al., 2004), engagement (Jang et al., 2012), effort regulation (Vansteenkiste et al., 2009), creativity (Amabile, 1993), and grades (Black & Deci, 2000). In contrast, controlled motives describe behaviours that are undertaken so as to avoid feelings of guilt and/or to meet the pressurizing expectations of others and are characterised as less autonomy-supportive and less adaptive.

Generally, results in the SDT-related literature show autonomous and controlled motives are weakly positively correlated (or occasionally negatively correlated). One exception is a study by Ratelle et al. (2007). In their Study 1, non-self-determined and self-determined motives were found to be strongly correlated for the participants who were Canadian high school students while the correlation for those who were Canadian university students was far weaker. This finding can be explained, according to Ratelle et al. (2007), by the former group experiencing more coercion and less choice than the latter. In other words, for the high school students in that study, an expressed interest in a subject (associated with more autonomous motives) was also accompanied by a perception that the environment was controlling (associated with more controlled motives). According to Amabile (1993), possessing both self-determined and non-self-determined motives may be synergistic. For example, enjoying a task but having to work hard to meet a (controlling) deadline can ultimately be beneficial to performance. In contrast, according to Grant et al. (2011), when individuals attempt to satisfy two very different modes of behaving, (i.e., autonomous and controlled motives), the tension created leads to what they term ambivalent motivation, which tends to adversely affect performance. Hence, it appears that the literature is divided on the efficacy of holding controlled motives.

As for the relationship between motives and academic achievement, much of the SDT-related literature assumes this to be unidirectional; that is, from self-determined motives to, for example, grades. In other words, few studies have examined whether the relationship between self-determined motives and academic performance might be bidirectional. One exception is Taylor et al. (2014). In this, results indicated that not only did intrinsic motives predict academic achievement but also that academic achievement predicted motives. In other words, Taylor et al.'s (2014) results suggested that some of the students found their subjects enjoyable because they had performed well in them. This idea, that good results were important in

fostering enjoyment of the subject, was raised in Alberth's (2018) study in which 503 Indonesian high school students answered questionnaires about their motives for EFL. While Alberth (2018) found support for the importance of SDT constructs as an element in the participants' overall motivation, existing SDT theories were nevertheless found to be insufficiently comprehensive. More specifically, Alberth (2018) argued that the 'Intrinsic' component needed to be combined with 'Self-Confidence' as many of the students who reported liking English did so because they believed they were good at it. However, even if you are only likely to be as happy with the subject as you were with your last exam result, choosing English for further study at university on the basis of a result-driven enjoyment, which Taylor et al. (2014) and Alberth (2018) suggest is possible, may not be unproblematic. According to Alrabai (2016), inflated High School Grade Point Averages (HSGPAs) are common in Saudi Arabia, with low-performing students there routinely receiving higher HSGPAs than their actual achievements warrant. In other words, students might be misled by non-informational feedback (in the form of inflated grades) and as a result choose a subject that they mistakenly believe they are good at but which in fact they are not. Other studies in Saudi Arabia have not supported the view that HSGPAs are inflated there. Specifically, in Alghamdi and Al-Hattami (2014), HSGPA predicted 3rd Year GPA in college even after scores in general aptitude and achievement tests were included in regression analysis. Similarly, in Hamaideh and Hamdan-Mansour (2014), HSGPA was positively associated with college GPA, where $r = 0.39$, $p < .001$. Hence, the evidence for inflated GPAs in this location is mixed.

As already mentioned, competence is believed to be a basic need in SDT and has been shown to be positively correlated with grades in a number of SDT-related studies (Grolnick et al., 1991). In the wider literature, competence perceptions have generally been found to be important, positive predictors of academic performance (Richardson et al., 2012; Stankov & Lee, 2014) with Elliot and Thrash (2001) even viewing the need for competence as central to an understanding of achievement motivation. In contrast, SDT theorizes that the need for autonomy is central, positing that self-determined motivation will be promoted when external events that impact competence perceptions - evaluations, competitions, or rewards - are deemed informational, which is to say they support the need for autonomy (Deci et al., 2001). In contrast, events impacting competence perceptions that are perceived not to promote the need for autonomy are termed controlling and are believed to undermine self-determined motivation. In other words, in both instances, competence levels may increase, but only in the former case is self-determined motivation positively affected (Ryan, 1982). As might be expected from the theorized link between perceived competence and more self-determined motives, these have

been found to be positively associated in the SDT-related literature (Soenens & Vansteenkiste, 2005).

Though competence is a central construct in SDT, outside the relationship autonomy has with it, the SDT-related literature has little to say about what other influences there are. This may be problematic for several reasons. First, when students have a clear understanding of a specific task's requirements, effect sizes for the relationship between the two tend to be higher than if the task is a sub-component of a larger, more complex problem (Bandura, 1993) such that the relationship between competence perceptions and performance become, in part, a function of the scope of the tasks that must be accomplished. If judging one's ability to accomplish a task becomes more difficult as the number of facets to the task increases, then approaching students at the beginning of a course which extends across several months and contains a multitude of tasks and asking them to estimate their ability to meet the upcoming challenges would seem to run the risk of encouraging answers that are either blithely optimistic or darkly pessimistic. In addition, as Lane et al. (2004) pointed out, when students are asked about their perceived ability to meet a course's demands at the beginning of a semester, they are likely to draw upon their prior performance to help estimate their abilities. If prior performance indicators such as high school grade point average (HSGPA) are skewed in some systematic way, this will impact the judgements that students make. More specifically, the receipt of consistently inaccurate feedback or a lack of familiarity with the actual requirements of a task (Pajares, 2002) may lead students into believing their abilities in a given subject are higher than more objective measures of performance would otherwise indicate, meaning that their actual abilities and their perceived abilities are misaligned (Gonida & Leondari, 2011). While HSGPA may not be the only or most important influence on competence perceptions, and while studies such as Atkinson and Geiser (2009) and Robbins et al., (2004) have shown that, despite differences in how grades are awarded from one school to another, HSGPA remains a key predictor of academic success in college, there are few if any studies to support the belief that for UAE-based university students, HSGPA is a sufficiently reliable basis for students to make self-judgements about their actual competence.

2.2.*Social-Contextual Variable: Socio-Economic Status (SES)*

The present study's single social-contextual factor, socio-economic status (SES), was assessed using the PISA (Program for Student Assessment) student background questionnaire. The use of such a measure is consistent with the belief that individuals act within multiple contexts and have multiple influences on their lives, as discussed in Bronfenbrenner's

ecological systems theory (Bronfenbrenner, 1977). As Guiffrida et al. (2013) point out, much of the prior SDT-related research on motivation and academic achievement has not included a such a measure, in effect ignoring, as an influence on academic achievement, one of the most important contexts of all: the family and its resources (Bourdieu, 1986). Support for SES being an important variable in predicting academic achievement comes from numerous large-scale studies, one of the largest being by Sackett et al. (2009). In this, 2.5 million individuals' data was analyzed with results indicating the relationship between SES and HSGPA was small but positive. Similarly, in Sirin's (2005) meta-analytic study with over 100,000 American kindergarten to high school students, the correlation between SES and general achievement (i.e., GPA) was small but positive, where $r = .22$, $p < .05$. Within the SDT-related literature, Butler's (2015) study found a large, statistically significant difference in grades between high and low SES groups, the result, Butler (2015) suggested, of lowered parental expectations in the latter group. In Guiffrida et al. (2013), self-determined motives were more strongly associated with college GPA for their high SES group than for the low one. In Kasser et al. (1995) grades were not the criterion variable, but there was evidence that the lower SES groups in their study tended to use more controlling parental practices, the implication being that their children also adopted such motives. With these results in mind, it was expected that family background, as operationalized through the use of an internationally-validated SES construct, would be positively associated with grades and with autonomous motives, though there was little or no evidence in the relevant literature to support the supposition in the case of UAE-based students.

Although the current study measures its personal and social-contextual variables using instruments posited to retain cross-cultural validity, this assumption, that all instruments that work well in some contexts work well in all contexts, has been challenged by a number of researchers (Hufton et al., 2002; Elliott et al., 1999; Markus & Kitayama, 1991). In the case of Hufton et al. (2002) and Elliott et al. (1999), their findings showed that definitions of what constituted hard work for their student respondents varied considerably according to the respondents' country of residence. On the other hand, SDT-related studies have been conducted with participants in many diverse contexts - from Bulgaria (Deci et al., 2001), Germany (Schmuck et al., 2000), Russia (Ryan et al., 1999), South Korea, Russia, and Turkey (Chirkov et al., 2003), and China (Zhou et al., 2011) - and have supported SDT's claim that possession of more self-determined motives is adaptive, regardless of culture. Similarly, the instrument to measure SES has been used in 34 countries (OECD, 2012) and that number is growing.

The literature available to assess the claim that the SDT-related measures used in the current study can be unproblematically applied to the UAE context is very limited. Of the few studies that have been conducted in the UAE with EFL learners using SDT's autonomous and controlled motives constructs, one - by Midraj et al. (2008) - found that intrinsic motives were positively correlated with academic achievement. However, it must be noted that although the constructs used were termed 'intrinsic' and 'extrinsic' motives, they were developed by the authors themselves. In addition to there being few UAE-based studies addressing the relationship between grades and student characteristics with standardized, SDT-related constructs to draw upon, there is also some evidence that Arabic-speakers in the GCC region may tend to hold education-related values that differ significantly from those of their Western teachers (Shebani, 2018). All of which means that the question of whether or not the constructs briefly introduced above and discussed further below hold similar meanings for its UAE-based Arabic-speaking participants as they do elsewhere require further investigation.

Finally, while it is commonly accepted that culture can influence an individual's attitudes, beliefs, and goals (Li & Wang, 2015; Shebani, 2018), and while few studies have investigated whether wealth, perceived competence, and autonomous motives - constructs routinely assumed to be adaptive for academic achievement in Western contexts - adhere to expectations and positively correlate with grades when respondents are UAE-based, it was nevertheless expected that results would offer further support for the universality of SDT's psychological constructs (Deci & Ryan, 2000), a confirmation for teachers and researchers in the region that although most SDT-related studies have taken place elsewhere, their results were still wholly relevant; wholly transferable. However, the current study not only adds to the limited literature on academic performance in the UAE, but by asking whether SDT's constructs are predictive in a context very different to those in which they are often used, it also opens the possibility of new lines of enquiry: namely, if these constructs are *not* related to academic performance in the ways expected, what might the limiting condition(s) on these constructs' posited universality be, and how might such an outcome relate to the puzzle of why UAE-based IELTS candidates' mean-scores are amongst the lowest of all?

3.Method

The present research was conducted with permission from the relevant authorities in the tertiary institution concerned and with the approval of Durham University's Ethics Committee. Students participated without reward and were free to exclude themselves from the study at any time. Permission to use the data collected from the students, on the understanding that

individuals would remain anonymous, was obtained along with consent to access semester grades. The questionnaires used were translated into Arabic and retranslated into English (Brislin, 1980). Discrepancies were discussed by the translators and a final Arabic version agreed upon. In both studies, data on student motives, perceived competence, SES, and academic achievement, operationalized as semester grades, were collected. Students completed the questionnaires at the beginning of the semester, which in both studies lasted approximately 16 weeks.

3.1. Participants

Two separate courses in a mandatory EFL program at a large tertiary institution in the UAE provided the participants in the current study. This institution has approximately 13,000 students, of which around 90% are Arabic. Approximately 48% of these are Emiratis. A significant portion of the remainder is from other Arabic-speaking countries such as Oman, Palestine, and Sudan, to name a few. For direct entry into the majors taught in English, entrants to the university are required to have an overall Band 5 in each of the four skills in IELTS (or a designated equivalent). Those who do not attain this level of proficiency must enter the university's EFL preparatory program.

In Study 1, a total of 166 participants (123 females, 43 males) were recruited from one of the program's highest-ability courses by asking for volunteers on the day of data collection. This number represented 79% of the student body. Though they had achieved an overall Band 5 in IELTS, they had been awarded less than Band 5 in one of the four skills, Reading. Typically, these students took three hours of EFL classes for a single semester. Only those who were present on the day of data collection and who provided completed questionnaires were included in the study. Hereafter, this is termed the Reading Skills group.

In Study 2, a total of 80 participants (56 females, 24 males) were recruited from the program's lowest-ability English course by asking for volunteers on the day of data collection. This represented 88% of the student body. Students on this course had achieved less than an overall Band 5 in IELTS, were attending the EFL program's lowest-level, mandatory course, and were required to take 25 hours of EFL classes. Typically, they remained in the program for at least two semesters. Only those who were present on the day of data collection and who provided completed questionnaires were included in the study. Hereafter, this is termed the Main Program group.

3.2. Instruments

In both studies the 32-item, 4-point Likert scale Academic Self-Regulation Questionnaire (SRQ-A; Ryan & Connell, 1989) was used to measure motives, with participants selecting one of four options (very true, sort of true, not very true, not true at all) as a response to statements concerning their reasons for action in an educational setting. For instance, if students strongly believed their reason for trying to do well in class was "Because that's what I'm supposed to do" it was taken as a strong indicator of controlled motives, whereas a strong belief in the reason "Because I enjoy doing my schoolwork well" was taken as a strong indicator of autonomous motives. Half of the reasons (16 items) on the SRQ-A formed the autonomous motives construct, which itself consisted of two forms of behavioral regulation: intrinsic and identified. The controlled motives construct, derived from the other half of the statements on SRQ-A (16 items), consisted of external and introjected behavioral regulations. In common with identified regulation, the rewards that these promises are external to the behavior. However, instead of feeling volitional, controlled motives feel internally pressurizing or externally controlled. In the current study, Cronbach's alphas for the autonomous and controlled motives constructs in both studies were not less than 0.77, indicating a satisfactory level of reliability.

To measure competence, the 4-item, 7-point Likert scale Perceived Competence Scale (PCS; Williams & Deci, 1996) was used. Participants rated statements such as "I feel capable of learning the material in this course". In the current study, Cronbach's alphas for these psychological variables were no lower than 0.86, indicating they were sufficiently reliable.

To measure SES, an instrument from the Program for International Student Assessment (PISA) was used in both studies. The 12 main items in this instrument, called the Student Background Questionnaire ("OECD: Technical report", 2015), assessed parental education levels, parental jobs, and household possessions. For example, students were asked how many cars there were in their home (none, one, two, three or more). Scale analysis was performed, and less reliable items were removed, which meant that the items related to parental education levels and parental jobs were extracted, leaving household possessions, a proxy for household wealth, as the single remaining construct measuring SES. By doing so, Cronbach's alpha was raised from .64 to .79 in Study 1 and from .63 to .72 in Study 2.

Data on HSGPA was collected by means of a self-report measure of the score that students obtained from their school for English only. Students were asked to indicate their score as a percentage.

Finally, in Study 1, access to the participants' semester grades for the course, which was focused on a single skill, reading, was obtained with the students' permission. In addition to teacher-awarded marks for classwork, semester grades were composed of scores on a standardized mid-term and final exam. In Study 2, access to participants' semester grades was also obtained with the students' permission. Unlike Study 1, in Study 2 semester grades represented the sum of grades awarded across four courses: Reading, Writing, Listening, and Vocabulary/Grammar. In addition to teacher-awarded marks for coursework, semester scores again included grades on standardized mid-term and final exams.

3.3. Data Analysis

In both studies, correlation analysis was conducted using SPSS Version 25. Correlations were by Pearson's Product Moment and two-tailed. Statistical significance was set at $p \leq .01$, due to the number of comparisons made and the lack of a Bonferroni correction. Deletion for correlation analysis was pairwise.

4.Results

4.1. Descriptive Statistics

Tables 1 and 2 below show the minimum, maximum, and mean values in Study 1 and Study 2 along with standard deviations. Two points are worth noting. First, despite having failed to reach the minimum level of English (i.e., Band 5 IELTS or its equivalent) and joining the institution's lowest-level EFL program, the Perceived Competence mean score for the Main Program group is almost identical to the Perceived Competence mean score for the more proficient Reading Skills group. Second, the mean HSGPA score for the Reading Skills group was higher than the Main Program's. A two-sample t-test indicated a statistically significant difference between the means; $t(244) = [4.668, p \leq 0.001]$.

Table 1. Descriptive statistics for Study 1

	Minimum	Maximum	*M*	*SD*
SES	1.21	2.24	2.01	0.25
HSGPA	68	100	89.88	6.05
AUTO	2.07	4	3.22	0.47
CON	1.94	4	3.11	0.38
PC	3.75	7	6.07	0.87

GRADES	28	88	66.33	10.41

Note. SES = socio-economic status HSGPA = high school grade point average (English only) AUTO = autonomous motives CON = controlled motives PC = perceived competence

Table 2. Descriptive statistics for Study 2

	Minimum	Maximum	*M*	*SD*
SES	1.65	2.78	2.33	0.29
HSGPA	50	98	85.63	7.86
AUTO	1.43	4	3.14	0.54
CON	1.22	3.72	2.91	0.47
PC	1.5	7	6.01	1.07
GRADES	50.75	93	67.79	9.02

Note. SES = socio-economic status HSGPA = high school grade point average (English only) AUTO = autonomous motives CON = controlled motives PC = perceived competence

4.2. Correlation Results

The following tables (Tables 3 and 4) show the correlations between Study 1 and Study 2's personal and social-contextual variables on the one hand, and overall grades in both courses on the other. In addition, a measure of prior performance in English only, in the form of High School Grade Point Average (HSGPA), is included.

Table 3. Study 1 correlation results

	SES	HSGPA	AUTO	CON	PC
SES					
HSGPA	0.11				
AUTO	0.11	0.09			
CON	0.07	0.06	0.36**		
PC	0.22**	0.08	0.34**	0.15	
GRADES	-0.25**	0.27**	-0.02	0.07	0.08

Note. SES = socio-economic status HSGPA = high school grade point average AUTO = autonomous motives CON = controlled motives PC = perceived competence. ** indicates $p \leq 0.01$.

Table 4. Study 2 correlation results

	SES	HSGPA	AUTO	CON	PC
SES					
HSGPA	0.12				
AUTO	-0.07	0.03			
CON	0.04	0.02	0.52*		
PC	0.01	-0.09	0.18	0.12	
GRADES	-0.18	-0.16	-0.07	-0.04	0.22

Note. SES = socio-economic status HSGPA = high school grade point average AUTO = autonomous motives CON = controlled motives PC = perceived competence. * indicates $p \leq 0.05$.

As can be seen from Tables 3 and 4, the correlations in Study 2 are generally smaller, and fewer reach the level of statistical significance compared to those in Study 1, which may be a function of the smaller number of participants in the Main Program group. As for what was expected, the correlation between autonomous motives and perceived competence was positive in both studies. In the case of Study 1, it was also statistically significant, where $r = .34$, $p < .01$. Notably, the strongest correlations across both studies were between controlled and autonomous motives. More specifically, in Study 1, the correlation was medium-sized, where $r = .36$, $p < .01$ while in Study 2, it was not only positive, but also large, where $r = .52$, $p < .01$. This positive relationship between autonomous and controlled motives does at least seem to be in accordance with the findings of Ratelle et al. (2007).

However, little else fully agreed with results found elsewhere in either the SDT or academic achievement literature. For instance, the direction and size of the relationship between HSGPA (English) and grades met with expectations in Study 1, but not in Study 2. The relationship between SES and perceived competence was small and statistically significant only in Study 1, where $r = .22$, $p < .01$. Similarly, the relationship between autonomous motives and grades was non-statistically significant and marginal, and in neither Study 1 nor 2 did perceived competence statistically significantly correlate with grades. Yet another unexpected finding was the negative correlation between SES and semester grades, albeit it only reached statistical significance in Study 1, where $r = -.25$, $p < .01$. Finally, although the relationship between HSGPA (English) and grades was as expected in Study 1, where both the direction

(positive) and the size of the correlation (where $r = .27$, $p < .001$) were consistent with much of the literature, in Study 2 the direction was unexpectedly negative, albeit the size of the correlation was marginal and did not reach statistical significance.

5.Discussion

The current study's aim was to explore how its chosen personal and social-contextual factors related to grades in a mandatory EFL program in the UAE. It was expected that the relationships seen in the wider academic achievement and psychological literature would be mirrored in the current study, paving the way for a discussion focused mainly on the ways in which autonomous motives were universally adaptive, how increasing wealth would sooner or later mean better IELTS scores, and how positive competence perceptions were centrally important to positive educational outcomes. It was hoped that if the puzzle of low mean IELTS scores for UAE candidates could not be entirely solved by the present study, then at least the study's findings would offer clues, directions, as to where the answers lay. This may still be true, but the path is shrouded in uncertainty, partly because of design constraints (which I will return to later), and partly because of the lack of guidance in the relevant literature. In what follows, notable individual results are discussed and explanations offered before an attempt is made on the central question, which is why the mean score of UAE candidates in IELTS is so low.

The first notable result was the finding that autonomous motives and controlled motives were moderately to strongly positively correlated, an indication that the context of the current study (i.e., students studying in a mandatory EFL program) may not be dissimilar to the one identified by Ratelle et al., (2007), who speculated that the reason for the unusual and unexpected positive correlations between autonomous and controlled motives was that their participants, high school students, were subject to "more extrinsic controls and rigid constraints" (Ratelle et al., 2007, p. 743). It follows that if some of the students in the current enjoyed studying English but found the conditions in which they studied controlling, basic need frustration could have existed alongside need satisfaction. The SDT-related literature on what this means for performance is not unanimous. According to Amabile (1993), controlled motives can be adaptive; conversely, according to Grant et al. (2011), controlled motives lead to ambivalent motivation and are non-adaptive. Perhaps one way to reconcile these views is to posit that a degree of controlled motivation is required in order to meet, for example, controlling deadlines, but that beyond a certain level, it becomes antithetical to performance. In the current study, the marginal correlations found in both studies between autonomous

motives and semester grades as well as the medium to strong correlations between autonomous motives and controlled motives are taken as an indication that students may have experienced ambivalent motivation, weakening the performance advantages that would have otherwise accrued in less controlling conditions and helping to account for the marginal correlations between autonomous motives and grades.

If it is granted that ambivalent motivation was at play, it can now be asked if this helps explain why the average IELTS score for candidates in the UAE is so low; and the answer is it may, but the likelihood of it being the key to the puzzle seems inversely proportional to the extent to which other countries have similar mandatory university-level EFL programs or use a given grade in IELTS (or its equivalent) as a condition for entry into their tertiary institutions. In other words, language proficiency requirements and mandatory EFL programs are probably not unique to the UAE, so their existence cannot wholly explain the uniquely-low average IELTS score for UAE-based candidates.

Remaining with autonomous motives, the ancillary question of why these are statistically-significant predictors of academic achievement in the majority of SDT-related studies but not in this one arises too. Given self-determined motives in SDT comprise two elements (enjoyment and importance), one possibility is that what is deemed enjoyable is not stable across contexts such that some but not all of the students in the Reading Skills and Main Program groups who indicated that they enjoy studying English accept that what is valuable is not necessarily also immediately enjoyable, that sometimes it takes hard work to gain knowledge and understanding (Bjork & Bjork, 2011). In other words, it is possible that not every student in the current study accepted that some degree of academic struggle is normal or believed that struggling to succeed when the work is challenging is rewarding, or even worth the effort. Following on from this, it suggests that in contexts where autonomous motives have proven to be statistically significant predictors of academic achievement, this has been accompanied by an understanding that struggle in an academic context on the one hand and self-realization on the other are not inimical. Conversely, where autonomous motives have tended to be more insubstantial, more ephemeral predictors of academic achievement, as in the present case, students may have been reluctant to accept this basic but crucial idea: that it takes time and effort to learn a language and a degree of struggle is normal, even desirable (Bjork, 1994), which is not to say that interest is not important or cannot be stimulated to some degree (Renninger & Hidi, 2011). However, if the dominant direction of influence is grades-to-interest (Burton et al., 2006) and if grades are falling because of a poor understanding of, or tolerance towards, the place of struggle in academic studies, any situational interest generated by the

teacher is in danger of being undermined by this lack of perseverance and a directionality that flows from grades to interest. Binning et al. (2019) have argued that embracing struggle is important to the development of a growth mindset (Yeager & Dweck, 2012) and the realisation of the benefits that such a mindset can bring. A growth mindset can be taught, so it potentially offers a route for teachers to improve students' resilience and academic achievement (Yeager & Dweck, 2020). However, there appear to have been no studies done in the UAE to assess this claim.

The second set of notable results concerns competence perceptions. Despite falling considerably short of the level of proficiency required in English for direct entry to their majors, the competence perceptions of those in the Main Program group (Study 2) were almost identical to those in the higher-ability Reading Skills group (Study 1). This may be explained by how the questionnaire framed its questions, which sought to know how likely the students believed it was that they could succeed in their present course (as opposed to achieving success in IELTS or in their English-medium majors). Given the students in Study 2 were at the lowest possible level in the program, it might seem natural to be confident about passing the course, and students were confident: the Perceived Competence Scale (PCS; Williams & Deci, 1996) has a maximum value of seven, so an average score (for both groups) of above 6 indicates there was generally a very high level of confidence amongst the students. The question that then arises is this: were the students in the study over-confident? Magnus and Peresetsky (2018) suggest that over-confidence can be defined as what is 'left over' when a student predicts future grades based on prior performance. It is reasonable to assume that if students were using prior performance as a means of judging future success, one key indicator would be HSGPA. If HSGPAs were inflated, it is also reasonable to suppose that the correlations in both studies between grades and HSGPA would be affected such that this prior performance indicator would only be marginally correlated with grades. However, the finding that the correlation between grades and HSGPA was small but positive and statistically significant for the Reading Skills group somewhat undermines the case that HSGPAs were problematic: the direction and size were as expected. In contrast, the negative correlation between these two variables in the Main Program seems to support the belief that HSGPA scores were inflated. How can these two results be reconciled? One possibility is that those in the Reading Skills group, whose English was at a higher level, tended to receive grades that more closely reflected their true ability while those in the Main Program tended to be awarded grades that did not. In other words, some of the HSGPAs in this lower ability group may have been raised beyond the level that the students' actual performance merited, a definition of grade inflation.

Unexpectedly, competence perceptions were not statistically significantly correlated with grades in either Study 1 or Study 2. Indeed, in Study 1 the correlation was vanishingly small, where r = .08, a far cry from studies such as Elliot and Thrash (2001) which put competence at the heart of performance. Such meagre correlations show that students tended to hold competence perceptions that were only weakly related to their actual performance in their courses. A reliance on potentially skewed prior performance indicators may be part of the reason why; another possibility lies with how achievement was operationalized and the meaning of course grades to the students. More specifically, in the Reading Skills course, students merely had to obtain a pass (set at 60%) in a single subject (Reading) to move out of the course and into their majors. If this objective, to obtain a pass and nothing more in this skill, was considered modest by the students, it may have lessened the need they felt to strive hard for excellent grades such that a ceiling effect diminishing correlation sizes was created. Conversely, although students in the Main Program group, potentially spurred on by the requirement to obtain at least a Band 5 in IELTS, may have been less interested in obtaining merely a passing grade, their grade was a composite, coming not from a single skill but several. In other words, predicting success in the Reading Skills course may have been a less complex task than predicting success in the Main Program course, where abilities tend to differ across skills. Therefore, with these dissimilarities in mind, attributing weak correlations between grades and competence perceptions in both groups simply to over-confidence (and inflated HSGPAs) seems unwise, which is not to dismiss the possibility that over-confidence played some role.

Finally, though the evidence for HSGPAs being inflated is mixed and may only apply to lower-level students, it is perhaps significant that the UAE has recently adopted a standardized exam, called the EmSAT (Emirates Standardized Test), as an index of student performance in high school at the end of Grade 12 in place of high school GPA.

The third set of notable results concerns the study's social-contextual variable, SES, which was expected to be positively associated with academic achievement (Sackett et al., 2009; Sirin, 2005), but was instead consistently negatively correlated with grades. This is difficult to interpret when the evidence in the relevant literature suggesting it is anomalous is vast, but one possible explanation is that wealthier students, if they tended to be Emiratis, faced very different prospective employment opportunities compared to those from other less affluent, Arabic-speaking countries. Jones (2011) suggests that most Emiratis would prefer to have a career in the public sector: not the private one, which is perceived to be more demanding. If there is a relative abundance of highly-paid but low-skilled jobs in the public sector for

Emirati (but not for non-Emirati) students, as Jones (2011) and Ridge and Farah (2012) suggest, the wealthier students may have felt their course lacked instrumental value: why strive for excellence when a well-paid job in the public sector is readily available, regardless of grades? Conversely, it is possible that some of the less wealthy students, if they tended to be non-Emiratis, felt their employment prospects were heavily dependent upon their academic performance, and that this acted to encourage academic engagement. That SES and grades were found to be negatively associated in the current study suggests, somewhat counter-intuitively, that those students with the most resources were in need of the most help in finding value in their course.

Finally, much of the above is dedicated to explaining how expectations drawn from studies primarily conducted in Western contexts were overturned. If issues over the limitations of the current study's correlational research design and its generalizability - based as it was on a cohort which was relatively small and taken from just one institution - can be set aside and its results accepted as meaningful, these may signal the presence of limiting conditions for constructs routinely assumed to be universally adaptive in the academic achievement literature. It has been argued that without a positive view of academic struggle, students may lose what enthusiasm they have for their studies, especially if the direction of influence for that enthusiasm is primarily grades-to-interest. In other words, it was suggested that a clear understanding of what studying a language for academic purposes entails is a prerequisite if a stronger relationship between autonomous motives and grades is to emerge in the same way it has in other studies. Studying a language for academic purposes can be a struggle for a great many, and if some are encouraged to think otherwise by inflated HSGPAs and/or if their interest is primarily dependent on obtaining grades as high as those awarded in school, this can only make the struggle to stay engaged in a course that may be unexpectedly unrewarding in terms of grades all the greater. Furthermore, this struggle can only be heightened if well-paid jobs are readily available for individuals who lack tertiary-level qualifications.

6.Conclusions

To return to the question posed at the beginning, does any of this shed light on the reason why the average score for UAE-based IELTS candidates is amongst the lowest in the world? The short answer is no: individually, the results in the current study are deeply puzzling, and as a consequence of defying much of the literature, prompt little more than speculation. However, this is not to say that the current study is without merit. Instead, its uncertainties are potentially its strengths - they point towards where answers are needed and how they might be

obtained. The current study's principal design limitation is that it was unable to follow up its questionnaires with interviews. Had there been, these could have investigated some of the subsequent key known unknowns; namely, how students reconcile a strong belief in their competence in English with failure to achieve success in the IELTS; how students' perceptions of their English competence are influenced, if at all, by their HSGPAs; how job market conditions for those who are Emirati are related to a willingness to continue investing in an English course, especially when grades in that course are low or dip, and learning the language ceases to be fun (and more generally, how academic struggle is viewed); how students attribute failure in IELTS; and of course, how students as previous and would-be IELTS takers account for the puzzle that prompted the research in the first place: why is the average grade for IELTS test-takers based in the UAE so low?

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