

# Freshman Students' Emotional Intelligence and Team-Work Satisfaction Levels. A Comparative Study: Gender and Nationality

**Birinci sınıf öğrencilerinin duygusal zekâsı ve ekip çalışması memnuniyet düzeyleri. Cinsiyet ve uyruk açısından karşılaştırmalı bir çalışma**

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## Özet

Zeka katsayısı (IQ) akademik başarı için yeterli bir belirteç olmadığı, duygularımız ve diğer bireyler ile olan ilişkilerimizi daha etkin şekilde ele almamıza yardımcı olabilen duygusal zekânın (EI) ise başarımızın %80'ine kadarından sorumlu olabileceği (Goleman, 1995), genel olarak kabul edilen bir görüştür. Bu durum, ekip ya da grup çalışması gerektiren dersleri alan öğrenciler için özellikle önemli görünmektedir. Daha yüksek EI düzeyine sahip öğrencilerin akademik ve sosyal başarıya ulaşmaları daha olasıdır. Ancak bu, daha düşük EI düzeyine sahip olan ve bu nedenle etkili ekip çalışması için gereken becerilerden yoksun olan birinci sınıf öğrencileri için zorlu bir görevdir. Bu durum, ekip çalışması için daha düşük memnuniyet düzeyleri ile sonuçlanabilmekte ve dolayısıyla başarılarını olumsuz olarak etkileyebilmektedir. EI'nin etkili ekip çalışmasına yönelik sözü edilen belirgin önemini ele alan çalışmamızda, Abu Dabi'deki Petroleum Institute'un mühendislik bölümü birinci sınıf öğrencilerinin EI düzeyleri ölçülerek, EI ile ekip çalışması memnuniyet düzeyleri arasındaki ilişki incelenmektedir. Veriler, Schutte Duygusal Zeka Ölçeği (EIS) ve Küresel Memnuniyet Ölçeği (GSS) kullanılarak toplandı. Çalışmaya 285 öğrenci (203 erkek ve 82 kız) katılmıştır. Katılımcıların 240'ı Birleşik Arap Emirlikleri öğrencisiyken, 45'i diğer Arap ülkelerinden gelen öğrencilerdi. Verileri cinsiyet ve uyruk değişkenlerine göre karşılaştırmak amacıyla Student t testi kullanıldı, EIS ile GSS puanları arasındaki ilişkinin kuvvetini ölçmek amacıyla da Pearson momentler çarpımı korelasyon katsayısından yararlandı. Sonuçlar, Schutte ve Malouff'un (1998) hesapladığı, ilk yıl üniversite öğrencilerinin ortalama 126 puanı ile karşılaştırıldığında, öğrencilerin genel EI puanlarının ortalamasının hemen altında olduğunu gösterdi. Uyruk bakımından istatistiksel olarak herhangi bir anlamlı farklılık bulunmasa da, kız öğrencilerin EI puanlarının, erkek öğrencilerin puanlarından istatistiksel olarak anlamlı bir şekilde farklı olduğu görüldü. GSS sonuçları, öğrencilerin ekip memnuniyeti düzeylerinin ortalamasının üzerinde olduğunu ve EIS ile GSS puanları arasında güçlü bir pozitif korelasyon bulunduğunu, bunun da daha yüksek EI düzeyli öğrenciler için memnuniyet düzeylerinin daha yüksek olduğu anlamına geldiğini gösterdi. Düşük EI düzeylerine rağmen daha yüksek ekip çalışması memnuniyeti düzeylerinin ortaya çıkmasının, kişiyi negatif duyguları açık şekilde ifade etmekten alıkoyan Arap kültürünün kolektivist yapısından kaynaklanabileceği söylenebilir.

**Anahtar sözcükler:** Duygusal zekâ, ekip çalışması memnuniyeti, mühendislik eğitimi, sosyal beceriler.

## Abstract

It is generally accepted that intelligence quotient (IQ) is not a sufficient predictor of academic success, and that emotional intelligence (EI), which can help us handle our emotions and relationships with others more effectively, can account for as much as 80% of our success. This appears to be particularly important for students who take courses requiring team or group work. Students with higher levels of EI are more likely to achieve academic and social success. However, this is a formidable challenge for freshman students who have a lower EI, and thus lack the skills necessary for effective team-work. This may result in reduced levels of satisfaction with team-work and therefore adversely affect their success (Goleman, 1995). With this apparent importance of EI for effective team-work, the current study measured the EI levels of freshman engineering students at the Petroleum Institute in Abu Dhabi, and examined the relationship between EI and team-work satisfaction levels. Data were gathered using the Schutte Emotional Intelligence Scale (EIS) and the Global Satisfaction Scale (GSS). 285 students (203 males and 82 females) participated in the study. 240 of the participants were Emirati students, while 45 were other Arab expatriate students. Student t-test was used to compare the data according to gender and nationality variables, and the Pearson product-moment correlation coefficient was used to measure the strength of association between EIS and GSS scores. The results showed that the students' overall EI score was just below average as compared to a mean score of 126 for first year college students computed by Schutte and Malouff (1998). The female students' EI score was found to be different from that of the male students at a statistically significant level although no statistically significant difference was detected regarding nationality. The results from GSS indicated that the students' team satisfaction level was above average, and there was a strong positive correlation between their EIS and GSS scores suggesting that the satisfaction levels were higher for students with higher EI levels. It is discussed that the higher level of team-work satisfaction despite the lower levels of EI might be due to the collectivist nature of the Arab culture, which discourages expressing negative emotions explicitly.

**Keywords:** Emotional intelligence, engineering education, soft-skills, team-work satisfaction.

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**T**here is a growing interest in teaching team-work skills to students in various disciplines. With the increased recognition of the significance of soft-skills for the success of engineers, more engineering faculties feel the urge to their attention to teaching team-work skills as well (Crawford, 2012; Felder and Brent, 2003). However, it is essential that students possess certain personal qualities to work in teams efficiently, one of which is improved awareness of one's own feelings as well as others'. This is considered particularly important for those who study or work in multi-cultural contexts such as the United Arab Emirates (UAE) since such contexts pose an additional challenge of familiarizing oneself with the various thinking processes of other nationalities. Otherwise, students' academic success in courses that incorporate team projects may be in jeopardy.

### Emotional Intelligence

The term 'emotional intelligence' (EI) was firstly coined by Mayer, DiPaolo and Salovey (1990) who defined it as 'the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions' (p. 189). However, Goleman (1995) popularized the term with his writings on the effects of EI on success in work-life. His definition included 'abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope (Goleman, 1995, p. 34). More recently, Mayer, Salovey and Caruso (2004) refined their definition of the term and stated that EI comprises different intelligent types such as social, practical and personal intelligences. They explain that the reason for including these terms is that these intelligence types are activated by cognitions that are related to personal and emotional matters.

What these definitions seem to have in common is that they regard EI as a skill that helps individuals raise their awareness of feelings and take control of them to interact with the outer world more effectively.

### Arguments in favor of Emotional Intelligence

Goleman (1995) suggests that one's overall success can depend on EI by as much as 80%. Goleman (2011a) admits that IQ is the main factor that predicts jobs, which people could have, and certain professions such as medicine and accounting require a certain level of IQ. However, he adds that once people get in the profession, they need to compete against people with similar IQ levels, and a stronger EI becomes the greatest asset in their quest for success since it enables them to practice soft skills such as handling them-

selves and their relationships more effectively through empathy. Feldman and Mulle (2007) agree that success derives from 'being aware of your emotions and managing them so your behaviors are intelligently and proactively driven' (p. 4). Research has also shown that people with higher EI tend to have stronger interpersonal relationships, more tolerance towards stress and more potential for leadership roles, with a possible result in higher salary and promotion prospects (Lopes, Grewal, Kadis, Gall and Salovey, 2006). Another study found that leaders in work-place who scored higher in self-awareness, self-management, social awareness and relationship management clusters of EI exhibited better performance (Cavallo and Brienza, 2004).

### Arguments against Emotional Intelligence

Despite the popularity it has gained over the years, EI has also been subject to some criticism. Some critics argue that the wide spectrum of components of the term makes it difficult to clearly define it and to reach a consensus on what it really is (Locke, 2009). The discussions over whether it is a skill or a trait also seem to create some confusion among researchers, leading to multiple versions of performance tests and self-report questionnaires with countless results that may conflict with each other (Perez, Petrides and Furnham, 2005; Waterhouse, 2006). Others state that EI tests may not be valid since 'emotional intelligence is so closely related to intelligence and personality' (Robbins and Judge, 2009), and they argue that there is not enough evidence on content validity of such instruments due to lack of solid theoretical development and ambiguity in content across IE measures (Conte, 2005). In response to these criticisms, Cherniss, Extein, Goleman and Weissberg (2006) assert that the presence of different versions at its early stages of development should be regarded essential rather than a weakness, and add that there is evidence showing that 'EI [in fact] is distinct from IQ, personality, or related constructs' (p. 240).

### Emotional Intelligence and Team-work

Given the heavy emphasis EI puts on controlling our emotions and managing our relationships with others due to our increased awareness of reasons for human behaviors, it can be justifiably suggested that the efficiency of work done in teams can be determined to a large extent by our EI. Goleman (1996, p. 160) asserts that although a group of people working in collaboration uses their 'group IQ' (defined as 'the sum total of the talents and skills of all those involved'), the main factor that determines their success rate is EI. Likewise, Lassiter (2004) points out that teams have their own EI comprised of the EI of individual members, which can contribute to the overall level of 'team emotional intelligence'. Coupled



with the 'group/team IQ', group EI can increase a team's performance significantly. Druskat and Wolff (*cited in* Beam, 2012) note that emotionally intelligent team members recognize each other's emotions and are at more ease with talking about them, which allows them to understand how emotions affect their teams' work. They also build better relationships outside their teams, and this strengthens their skills of facing challenges. As a result, trust among members is built, and group identity is established. This contributes to collaboration and group efficiency.

Hypotheses of the positive effects of EI have been supported by research. Aslan, Ozata and Mete (2008), for instance, investigated the effects of group emotional intelligence on team effectiveness among health workers in the Turkish context. Their results showed that the two sub-dimensions of the Group Emotional Intelligence Scale, namely group self-management and group social skills, had a positive effect on team effectiveness. They found that the members' positive attitude of showing respect and giving positive energy to group members helped teams work systematically. Group social skills, on the other hand, created compatibility among group members and hence reduced tension, discrepancy and incompatibility within the groups.

Research done in the Indian context also revealed that, in self-managed teams, emotional intelligence and team-work effectiveness were positively correlated (Gujral and Ahuja, 2011). Jordan and Troth (2004) examined the relationship between team members' emotional intelligence and their conflict-resolution skills, which also seemed to have a positive effect on individual members' performance and team outcome. They found that those with high EI tended to benefit from integrative and collaborative conflict-resolution techniques due to their increased level of awareness of their own and others' emotions and willingness to lend an ear. This, in turn, helped keep the teams on track and remain focused on their targets.

Nien and Hung (2013) state that EI enables team members to become conscious of their own feelings, increasing their efficiency in holding conversations and negotiating with others. This is supported by Luca and Tarricone's study (2001) which found a positive correlation between students' EI levels and team harmony. In a study that investigated the effects of EI on team cohesion, Beam (2012) found that a panel of supervisors' evaluations of the graduate students working in teams indicated a moderately positive correlation between the individual team members' total EI score and their team's ratings of cohesiveness. This suggested that the emotionally intelligent teams were likely to display more interpersonal skills and more commitment to the team process. Their EI also made a difference

in terms of resolving conflicts, facilitating change and sharing leadership responsibilities.

Considering the findings of the studies mentioned above, emotionally intelligent team members may be expected to be more satisfied with the work produced by their teams. Recent research investigated whether or not this might always be the case. Rozell and Scroggins (2010) found that the undergraduate business students with very high EI scores actually were less satisfied with certain facets of group work. One reason for this was that these people suffered from hypersensitivity due to their constant awareness of other team members' feelings. This caused them to depress; and therefore reduced the effectiveness of their team-work.

### Rationale for the Current Study

In light of the negative correlation between high EI and team-work satisfaction that appeared in the study by Rozell and Scroggins (2010), and the results of the aforementioned studies which suggest that emotional intelligence and team-work efficiency are in general positively correlated, there is still a need for more empirical data. The impetus for this study comes from this complex, yet informative nature of EI with its potential effects on individual students' satisfaction levels of team-work in project-based courses.

The Communication Department courses at the Petroleum Institute (PI) in Abu Dhabi, where the researcher of this study teaches, require students to work in teams of four or five to carry out a long-term project to offer recommendations for an issue they think needs to be resolved. As a university that trains engineers only, PI pays special attention to the fact that engineers most often work in collaboration with other engineers and professionals from other disciplines. To prepare students for collaborative work, university education programmes/departments must include training in team-work as a soft skill. Also, since PI is accredited by Accreditation Board for Engineering and Technology (ABET), it adheres to the criteria set by the Board, with a particular focus on criterion 3d which states 'an ability to function on multidisciplinary teams' and 3g which states 'an ability to communicate effectively' (ABET, 2013).

To this end, the Communication Department instructors guide freshman students through team projects that require intensive team-work. However, the process is not always without problems, mainly due to the students' lack of experience in working with others prior to attending the communication courses. This poses quite a few challenges in terms of how to train students to become more conscious of their own emotions as well as the emotions of the other students that they work with. One common result of this is frequent student

visits to the instructors to complain about the issues they are suffering within their teams. As a result, the experience of working in teams turns out to be a source of distress for many, at least during the earlier stages. Those who cannot resolve this distress have the tendency to avoid team responsibilities, or to evaluate their peers very harshly when it is time for peer evaluation marks, which are designed to encourage students to assume greater responsibilities for their teams. On the extreme edge, those who are academically strong (expat students more often than not), may assume too much responsibility for the sake of getting a good mark, ignoring the needs and the emotions of their team-members. In both cases, there appears to be conflicts stemming from lack of EI.

### Aim of the Research and Research Questions

With these issues in mind, this research aimed at determining the relationship between emotional intelligence and team-work satisfaction levels of the freshman students at PI. To this end, the following research questions were asked:

- What are the emotional intelligence levels of the freshman students at PI? Do their emotional intelligence levels differ according to gender and nationality?
- What are the team-work satisfaction levels of the freshman students at PI? Do their team-work satisfaction levels differ according to gender and nationality?
- Is there a relationship between the students' level of emotional intelligence and team-work satisfaction?

## Methods

### The Respondents

A total number of 285 freshman students from the Petroleum Institute (PI) participated in this study. 30% of the participants were female, and 70% of them were male. The students participated in the study from gender segregated campuses.

84% of the participants were Emirati while 16% of them were expatriate students, who coming from countries such as Egypt, Palestine, Oman, Syria and Qatar.

The ages of the participants varied from 18 to 22, with a mean age of 19.

### The Data-Gathering Instruments

Two data-gathering instruments were used to gather data to investigate the relationship between the respondents' emotional intelligence and team-work satisfaction levels:

#### *The Schutte Emotional Intelligence Scale*

Developed by Schutte and Malouff (1998), the Emotional Intelligence Scale (EIS) is a 33-item self-report questionnaire

that assesses the ability to process information about one's own and others' emotions. Some of the items are "I know when to speak about my personal problems to others.", "When my mood changes, I see new possibilities", "I like to share my emotions with others", and "I am aware of the non-verbal messages other people send."

Higher scores indicate higher levels of emotional intelligence. The scale has been shown to be reliable (with 0.90 internal consistency) and valid (Schutte *cited in* Simmons and Lehmann, 2013).

The mean score for EIS used to determine respondents' emotional intelligence levels can vary depending on their professions or the stage of life they are at, reflecting their maturity levels (Schutte and Malouff, 1998). For instance, a mean score of 142 with Standard Deviation (SD) 9 is used for teaching interns while a score of 133 with SD 15 is used with nursing home employees. On the other hand, the mean score assumed to be suitable for first year college students in general is 126 with SD 12. Therefore, in this study 126 was used as the EI mean score since the respondents were freshman students at a university in the UAE context.

#### *Satisfaction Scale*

The Global Satisfaction Scale (GSS) developed by Keyton (1991) was used to determine the respondents' level of satisfaction with their team-work. GSS is a 5-point scale questionnaire with 24 items asking the respondents to indicate their level of satisfaction. Sample statements in this questionnaire include "Team members provide constructive criticism to others", "Team members interact well with one another", "Our team spends its time well", and "Everyone attends each team meeting".

The total score of these items corresponds to how satisfied the respondents are with their team-work. A score of 72 would be an average score meaning a neutral orientation. A score of 96 or above, on the other hand, would indicate high satisfaction. A result falling between 72 and 96 would be considered greater than an "average level" of satisfaction suggesting the respondent is relatively satisfied with team-work.

Keyton (1991) found that the internal reliability for the items in the scale ranged from 0.53 to 0.61. Park (2008), using an abbreviated version of the scale, carried out confirmatory factor analysis and obtained an  $\alpha$  of =0.93.

### The Analyses

SPSS (Version 18.0) (SPSS Inc., Chicago, USA) was used to analyze the data. Descriptive statistics such as frequencies, mean, standard deviation, minimum and maximum were used



to describe the data collected with the data-gathering tools. Numerical data were firstly tested for normality, and then Student's t-test was used to analyze the significance of team-work satisfaction and emotional intelligence levels by gender and nationality. Also, the Pearson product-moment correlation coefficient ( $r$ ) was used to measure the strength of association between the EI scores and the team-work satisfaction scores of the participants. A  $p$ -value of 0.05 was considered statistically significant.

## Results

The first research question aimed at identifying the participants' level of emotional intelligence. The results of the data analysis in response to this question can be seen in Table 1.

Table 1 shows that the respondents' average score was 122.34, which is below the average score 126 identified for first year college students. The case was similar with both the male and female students: Both groups of students had average scores less than 126 (121.34 and 124.80 respectively), though female students' slightly higher overall score differed from that of the male students at a statistically significant level ( $p=0.032<0.05$ ). When the minimum scores of both genders are compared, it can be seen that there were instances of much lower scores in the data collected from the male students (57 vs. 86). The analysis of the data also revealed that 64% of the male students scored below average, while 48% of the female students' scores were below average. Similarly, more of the female students' scores (33%) ranged between 132 and 156 – a range indicating a strong orientation for emotional intelligence–, compared to the scores of male students between 132 and 158 (21%). Regarding the effects of nationality on the participants' EI scores, Table 1 indicates that there was no statistically significant difference between the scores of the two groups of students ( $p=0.158>0.05$ ).

The second research question aimed at identifying how satisfied the students were with their team-work. Table 2 presents the results for this question.

As can be seen in Table 2, the students' overall satisfaction level was 91.50, which is much higher than the average score of 72, but not as high as 96 which would indicate high satisfaction. This finding indicates that the students were reasonably content with their their team-work. When the gender variable is considered, it is seen that although both groups of students were fairly satisfied, the female students' average score was higher than that of the male students (97.74 and 88.98, respectively). This difference was statistically significant at  $p=0.001$  level of significance. Considering the fact that a score of 96 or above would show a high satisfaction level,

**Table 1.** Emotional intelligence levels.

		N	Min.	Max.	Mean	SD	$p^*$
Total score		285	57	158	122.34	12.370	
Gender	Female	82	86	158	124.80	12.825	0.032
	Male	203	57	156	121.34	12.072	
Nationality	Emirati	240	57	156	121.89	12.734	0.158
	Expat	45	103	158	124.73	9.996	

\* $p<.05$

the female students can be said to have been much more pleased with working with their team-members compared to the male students. A further analysis of the data also showed that 81% of those who scored less than 72 were the male students, which is another indication of the male students' comparatively lower contentment with their experience of team-work.

The comparison of the results for Emirati and expat students, on the other hand, did not reveal a statistically significant difference between the groups' levels of team-work satisfaction ( $p=0.317$ ). Both groups of learners appeared to be fairly happy working in their teams, with Emirati students scoring slightly higher than the expat students (91.87 vs. 89.53).

The aim of the last research question was to determine if there was a relationship between the participants' level of emotional intelligence and their team-work satisfaction level. The results of the data analysis done for this question can be seen in Table 3.

The Pearson product-moment correlation coefficient computed to assess the relationship between the emotional intelligence and global team-work satisfaction scores for the whole population showed that there was a positive correlation between the two variables ( $r =0.375$ ,  $n= 285$ ,  $p=0.001$ ). This indicates that the participants with higher emotional intelligence scores generally had higher satisfaction levels of team-work.

**Table 2.** Team-work satisfaction levels.

		N	Min.	Max.	Mean	SD	$p^*$
Total score		285	26	119	91.50	14.328	
Gender	Female	82	51	119	97.74	13.874	0.001
	Male	203	26	119	88.98	13.756	
Nationality	Emirati	240	26	119	91.87	14.350	0.317
	Expat	45	48	113	89.53	14.210	

\* $p<.05$

**Table 3.** Pearson product-moment correlations of emotional intelligence and team-work satisfaction.

		Emotional intelligence	Team-work satisfaction
All participants (N=285)	Emotional intelligence	–	0.375*; 0.001 <sup>a</sup>
	Team-work satisfaction	0.375*; 0.001	
Gender	Female (N=82)	Emotional intelligence	0.478*; 0.001
		Team-work satisfaction	0.478*; 0.001
	Male (N=203)	Emotional intelligence	0.305*; 0.001
		Team-work satisfaction	–
Origin	Emirati (N=240)	Emotional intelligence	0.388*; 0.001
		Team-work satisfaction	–
	Expat (N=45)	Emotional intelligence	–
		Team-work satisfaction	0.352†; 0.018

<sup>a</sup>Values are product-moment correlation coefficient (r); p  
\*p<.01 (2-tailed), †p<.05 (2-tailed)

From Table 3, it can also be seen that the correlation coefficient (r) for the female students' score equals 0.478 (n=82, p= 0.001), indicating a positive relationship. Similarly, the analysis of the data from the male students revealed a positive relationship between the two variables (r=0.305, n=203, p=0.001).

The results of the correlation analysis conducted for Emirati and expat groups also indicated positive relationships for both groups of participants. The Emirati students appeared to increase their scores of team-work satisfaction levels as they increased their scores for emotional intelligence (r=0.388, n =240, p=0.001). Likewise, there was a positive correlation between the expat students' emotional intelligence and team-work satisfaction levels (r=0.352, n=45, p=0.018).

In general, these results suggest that the more emotionally intelligent the participants were the more satisfied they were with their team-work.

## Discussion

This research aimed at identifying how PI freshman engineering students' emotional intelligence levels (EI) may affect their team-work satisfaction levels.

With this aim, firstly the participants' EI levels were measured. The results showed that the students' overall score of EI (122.34) was below the average score of 126 computed for first year college students by Schuttle and Malouff (1998). Some contradictory findings appeared in previous research conducted into freshman students' EI in different contexts. For instance, Nam (2008) used the BarOn Emotional Quotient Inventory (EQ-i) to assess freshman students' emotional intelligence at San Jose State University in the USA,

and found that the participants' had an average level of EI. In this study, Nam also investigated the effects of camping experience on the students' EI scores and revealed that the EI score of those who had camping experience was greater at a statistically significant level. This indicated that freshman students' experience of camping was a likely factor in increasing their self-esteem, social and thinking skills, which increased their scores for the subscales of EQ-i: intrapersonal, interpersonal, stress management, adaptability and general mood. On the other hand, Shetty et al. (2013) investigated first year medical students' EI using Emotional Quotient Self-Assessment Checklist, and found that more than 30% of the students scored much lower than the average score. However, the students who had regular sleeping patterns, participated in recreational activities and did exercises had higher EI scores than those who did not. The findings of previous research, as well as the findings of this current research, seem to suggest that freshman students in different contexts tend to have a tendency for using their EI, but there may be room for further improvement, and that their engagement in extracurricular activities may help them improve their scores of EI.

An important finding of the study was that the female students' EI score was different from that of the male students at a statistically significant level. This result has been echoed in previous research too. For example, research conducted by Berrocal, Cabello and Castillo (2012), who used Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT), revealed that the female participants' overall scores were higher than the male participants, particularly in the areas of facilitating, understanding, managing and strategy. Ahammed, Abdullah and Hassane (2011), who also used



MSCEIT with Emirati students, found that the female university students tended to have higher EI scores compared to the male students. Similarly, Rokni, Hamidi and Gorgani (2014), Shetty et al. (2013), and Harrod and Scheer (2005) found that females' EI scores were slightly higher than males' scores. Taken together, the results of this study and previous research seem to give credence to a belief that women may be better at certain aspects of EI (Goleman, 2011b). One of these aspects is emotional empathy which can give women the advantage of understanding how others feel. However, Goleman (2011b) warns that men can be more skilled in managing distressing emotions. Kafetsios (2004), on the other hand, found that there was not a statistically significant difference between men and women's overall EI scores, although women tended to be more skilled in terms of decoding facial expressions. These differences in men's and women's strength areas may be expected to balance out their scores. However, in cases of differences, one reason why females seem to score higher in EI tests may be because of their tendency to express their feelings while males tend to avoid this as a sign of strength (Naghavi and Redzuan, 2011).

This study did not find a statistically significant difference between the EI levels of Emirati students and that of expat students. Because the expatriate group of participants was comprised of learners from various Arab countries such as Egypt, Oman, Qatar, Syria and Sudan, the participants' similar cultural background may have been one of the reasons for the similarity between the two groups. One study of 204 undergraduate students' EI orientation in Dubai and Abu Dhabi found that 57% of the participants had "low average" and "poor" EI scores (Ahmed, Abdullah and Hassane, 2011), which supports the finding of this current study showing that Emirati students' total EI score was below average. The limited amount of research conducted into the EI levels of Arab students in general and Emirati students in particular limits further comparisons to previous results. Although this may be considered a limitation, it suggests that this current study is a genuine and worthwhile contribution to understanding about EI in the local context of the UAE.

Regarding the participants' satisfaction levels of team-work, the results of the study showed that the students were reasonably satisfied with their team-work. Although the female students were found to be more satisfied than the male students, the nationality did not seem to play a role in determining their level of team-work satisfaction. These results suggest that the students in general were relatively happy with their team-work despite their comparatively lower EI scores. However, this may be due to a cultural orientation of

Arabs to avoid complaints as face-threatening acts. The collectivist nature of some Arab cultures may encourage them to keep silent even if they are not fully content. Reisinger and Turner (1999) observe that members of a collectivistic culture tend to avoid complaining explicitly and expressing dissatisfaction since they tend to think such behaviors are socially unacceptable, and may result in confrontation which would prevent harmonious relationships. Having a collectivist culture, Arabs tend to discourage confrontations to prevent harmony from being disturbed even if it means overriding the task at hand; therefore they tend to be soft on people in order to avoid losing face (Al-Omari, 2008).

It was also found that there was a positive correlation between the EI scores for the group of all students and their team-work satisfaction scores. The same was true when testing students grouped by nationality and gender. Taken together, this suggests that the students with higher EI scores tended to feel happier in their teams than the students with lower scores. This is an important finding supporting the suggestion that team-members' EI has implications on how they deal with feelings in teams and how well they are able to resolve conflicts by showing empathy and regulating their own emotions. The ability to deal with feelings and resolve conflicts has a determining effect on teams' performance and overall success (Luca and Tarricone, 2001). On the other hand, it has been found that learners' positive experiences in their teams are partly responsible for increases in team members' EI (Moriarty and Buckley cited in Sigmar, Hynes and Cooper, 2010). When these research findings are considered, it appears that learners with higher EI scores are likely to understand others' emotions and be successful at tackling potential problems, which in turn increases their satisfaction levels of team-work.

## Limitations

The first limitation of this study stems from its relatively small size, particularly with the female participants. Therefore, the results can be considered indicative but should not be generalized to the whole population of freshman students, even in the immediate context of this research. Also, the segregated nature of the setting in which the study was carried out may have had a determining effect on the overall results and therefore cannot be generalized to co-educational contexts.

The second limitation of the study is related to the much smaller size of the expat students, which is likely to affect the reliability and interpretation of the data analyzed to identify the effects of nationality as a variable. I also acknowledge the



fact that the students in the expat group came from a variety of cultural backgrounds is also limiting since it may jeopardize the reliability of the data collected from this group. Another limitation of this study is that the nature of the self-reporting data-collection tools may introduce bias in the results due to uncontrolled factors such as the collectivist nature of some Arab cultures.

### Further Research

Further research can consider supplementing quantitative data from self-reporting questionnaires with qualitative data. This would help understand causal connections and clear any ambiguities (Silverman, 2010). Other researchers can also consider investigating how students' EI are reflected in their academic success, and possible connections between their academic success and team-work satisfaction levels. Also, the lack of empirical data on the United Arab Emirates university students' development of EI can be tackled with similar research in different contexts. The potential impact of co-educational systems on EI and team-work satisfaction can also be investigated. In addition, longitudinal studies can help identify how students' EI develops as a result of their continuous engagement in team-work activities. Lastly, the relationship between EI and team-work satisfaction levels of students from different disciplines can be compared to identify similarities and differences between various fields, which could be particularly useful for those engaged in team-work with people across disciplines.

### Conclusion

It is widely accepted that EI plays a significant role in different parts of our lives including academic studies. However, this research showed that the freshman students in the local context of the Petroleum Institute tended to have EI scores just below average. This shows an obvious opportunity for enhancing the education offered at PI; however, students will be given the advantage of the opportunities they could benefit if their courses build EI enhancing components in their curricula. Considering the variety of challenges freshman students face in their first year at university, raising their awareness of EI and the factors that contribute to the improvements in their EI can be particularly important. Courses that require students to perform team-based projects will benefit a lot from this since students' improved EI will be likely to increase their productivity and success, which is also suggested by previous research (Aslan, Ozata and Mete, 2008; Gujral and Ahuja, 2011). This, in turn, will have a positive effect on students' team-work satisfaction levels.

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