Article

Gender Comparison of Emotional Intelligence of University Students

Asfandyar Fida
Abdul Wali Khan University Mardan
asfand_chd@yahoo.com

Abdul Ghaffar
Abdul Wali Khan University Mardan
abdulghafar@awkum.edu.pk

Amir Zaman
Abdul Wali Khan University Mardan
dr.amirzaman@awkum.edu.pk

Asif Niwaz Satti
University of Haripur
dr.ansatti@gmail.com

Abstract

Emotional intelligence is a contributing construct to learning and other personal and career developments. It is a perplex notion involving many conceptions which resulted in various tools of emotional intelligence. University education is a terminal stage when young people are ready to enter the job arena and are expected to be emotionally sound. Numerous studies have been carried out on the differentiation of emotional intelligence of the learners, particularly at graduate and post-graduate levels. This study is an attempt to investigate emotional intelligence of the university students. Since there are differences in the findings of various studies in terms of gender; therefore, this study also considers to explore the discrepancy of the emotional cognizance of the male and female learners at university level. The target participants of this investigation were the students of all five faculties of a university in Khyber Pukhtunkhwa, a province in Pakistan. The Wong and Law Emotional Intelligence Scale (WLEIS) developed by Wong and Law (2002) was used for data collection. The outcomes of the investigation showed that female

learners were ahead of male in emotional intelligence. Further, the learners of business and economics had superior level of emotional intelligence, while students of Arts and Humanities had inferior level of emotional intelligence. The study put forward some valuable suggestions, particularly through curricula enhancement and for further research activities.

Keywords: emotional intelligence, gender difference, models

Introduction

Human activities are energized by certain internal and external stimuli, which contribute towards career development and learning. One of such factors is emotional intelligence. Emotional intelligence is one's knack of identification using and regulating emotions. Investigators have established that instructional outcomes are affirmatively associated with emotional intelligence (Rozell, Pettijohn & Parker, 2002; Schutte et al., 1998). Further, achievement in the coming times could be predicted through estimating emotional intelligence (Parker, Summerfeldt, Hogan & Majeski, 2004). Planalp and Fitness (1999) viewed that emotions are vital to acquisition of information and they enhance or impede the attention, motivation, interests, memory and social attributes of a learner.

Emotional intelligence is a complex construct involving different descriptions, conceptions and point of views and is a significant element in teaching, learning and being successful in job and personal development. Crowne (2009) summed up various notions of emotional cognition and affirmed that emotional intelligence is the recognition and acquisition of one's own and others emotions along with the capability to employ this emotional information in the thinking process and in taking appropriate steps. Sparrow and Knight (2006) hold the view that emotional intelligence incorporates ideas, emotions and functions. It should be regarded as a 'tendency' rather than a practice.

There are various paradigms of emotional intelligence. Ability model, introduced by Mayer and Salovey (1997) is one of the well-known models of emotional intelligence. This model is assumed to be cognitive oriented (Pérez, Petrides & Furnham, 2005; Petrides, Frederickson & Furnham, 2004) and provides that emotional intelligence is an element of social as well as pure intelligence (Prentice, 2008). Similarly, Goleman (1995) declared emotional intelligence as

a collection of competencies which enhances administrative and job capabilities. BarOn (1997) stated that emotional intelligence contains social and emotional faculties associated with cognitive activities. Trait model, by Petrides and Furnham (2001) assumes that emotional intelligence is an aggregate of social and behavioral attributes to comprehend and employ emotions.

Davies, Stankov and Roberts (1998) extensively reviewed many tools of emotional intelligence and arrived at a consensus that most of the instruments of emotional intelligence were cross-loaded with the facets of personality. They also presented their conception of emotional intelligence, which included the capacity to perceive and exhibit one's own and others' emotions, directing and exercising emotions. Wong and Law (2002) introduced a self-report instrument of emotional intelligence grounded on the conception of Davies, Stankov, and Roberts (1998), known as Wong and Law Emotional Intelligence Scale (2002). This instrument meets the psychometric criterion with a reliability value of 0.82 (Runcan & Iovu, 2010). Individuals, groups or organizations with superior emotional cognizance are assumed to be superior in guiding emotions in dealing with environmental disputes (Sparrow & Knight, 2006). Research indicates that emotional intelligence is significant in life comforts and achievements, it also facilitates emotional and social adjustments (Lopes, Salovey & Straus, 2003; Salovey, Mayer & Caruso, 2002), professional and organizational development, life satisfaction and educational attainment (BarOn, 2005; Goleman, 1998; Shahzad, Riaz, Begum &Khanum, 2014). Emotional intelligence is also considered a good indicator of future accomplishments (Daud, Kashif & Chaudhry, 2004; Glomb, Kammeyer-Mueller & Rotundo, 2004).

Emotional intelligence is intensively studied in the contexts of working organizations and educational institutes, including gender differentiation. Makvana (2014) and Rooy, Alonso & Viswesvaran (2004) explored that female exhibited superior level of emotional intelligence. Conversely, Cakan and Altun (2005) did not find any difference of emotional intelligence in term of gender, age and job experience.

In the context of Pakistan, Tariq, Qualter, Roberts, Appleby and Barnes (2013) found that female learners with a high emotional intelligence demonstrated superior confidence and lower mathematical anxiety. Similarly, Chaudhry, Ali,

Sajjad & Ali (2013) also revealed that female students exhibited excellence in dealing with sentimental data. There were also investigations that declared no difference of emotional intelligence from gender perspective (Nasir & Masrur, 2010; Shehzad & Mahmood, 2013).These contradictory findings led the researchers to reconsider this issue and study emotional intelligence in terms of gender in the local context.

Objectives

- To investigate variation of emotional intelligence across gender
- To find the dispersal of the various facets of emotional intelligence

Methodology

When data from a large population are required, than a survey approach is adopted. This study was a quantitative expedition to examine the emotional intelligence of the learners at university level. The focus of the study was students of five faculty from a university in Mardan. By using a cluster approach, three departments from each faculty were considered as the sample for investigation. The scholars of the final year of the selected departments were subjected to investigation. Table 1 indicates the sample distribution.

Table 1
Sample Distribution

Faculty	***No of students***
Arts & Humanities	166
Business & Economics	158
Chemical & Life Sciences	159
Physical & Numerical Sciences	195
Social Sciences	150
Total	**828**

Research instrument

Wong and Law Emotional Intelligence Scale (2002) was used for the present study, which is a concise, comprehensive and reliable tool for investigation. There are 16 questions in this tool on a Lickert scale of 7 points. It is a reliable

and credible instrument used by researchers worldwide. This instrument was put to pilot investigation prior to real testing. The pilot study reported the reliability of this instrument being .893.

Data Analysis

The statistical procedures of percentage, mean t-test and ANOVA were employed to analyze the data. The percentage provided the dispersal of each category of emotional intelligence.

Table 2
Percentage Distribution of the Factors of Emotional Intelligence

		Very Low	Low	Moderate	High	Very High
Self-emotion appraisal	Male	1.2%	9.4%	25.4%	46.1%	18.0%
	Female	0.6%	6.6%	20.9%	49.7%	22.2%
Others' emotion appraisal	Male	2.1%	10.2%	28.9%	40.0%	18.8%
	Female	0.3%	9.2%	29.7%	38.0%	22.8%
Use of emotion	Male	0.8%	15.6%	27.3%	37.7%	18.6%
	Female	0.3%	12.7%	27.2%	43.0%	16.8%
Regulation of emotion	Male	4.7%	25.6%	28.9%	32.4%	8.4%
	Female	5.1%	21.2%	30.7%	29.1%	13.9%
Overall emotional intelligence	Male	0.8%	17.6%	28.7%	44.9%	8.0%
	Female	0.3%	12.3%	30.1%	46.8%	10.4%

Note: The percentage intensity of each facet.

The percentage distribution of emotional intelligence in terms of gender is shown in the Table 2. On 'very high' category, female learners have subjugated on all facets of emotional intelligence except on 'use of emotion,' where male learners have slightly exceeded. On 'high' category, the results are mixed. The female students have all round dominance when the 'very high' and 'high' category scores are summed up.

The outcomes from mean scores revealed that female learners were better than male on all dimensions and on 'overall emotional intelligence.' the lowest mean value is hold by 'regulation of emotion' by both gender. The Figure 1 has further highlighted the mean findings across gender.

Table 3
Mean Distribution and t-test for Emotional Intelligence

	Gender	**Mean**	**S. D**		**T**	**Df**	**Sig. (2-tailed)**
Self-emotion appraisal	Male	3.70	.910	Equal variances assumed	-2.475	826	.014
	Female	3.86	.858	Equal variances not assumed	-2.509	696.944	.012
Others emotion appraisal	Male	3.66	.956	Equal variances assumed	-1.143	826	.253
	Female	3.74	.924	Equal variances not assumed	-1.152	684.204	.250
Use of emotion	Male	3.58	.988	Equal variances assumed	-.824	826	.410
	Female	3.63	.918	Equal variances not assumed	-.839	704.591	.402
Regulation of emotion	Male	3.14	1.042	Equal variances assumed	-1.496	826	.135
	Female	3.26	1.096	Equal variances not assumed	-1.478	641.425	.140
Overall EI	Male	3.42	.896	Equal variances assumed	-2.058	826	.040
	Female	3.55	.851	Equal variances not assumed	-2.084	693.415	.038

The outcomes of t-test revlead that female there were signifcantly superor to male students on differences on the 'self-emotions appraisal' (t (826) = -2.475, $p = 0.014 < 0.05$) and 'overall emotional intelligence (t (826) = -2.058, $p = 0.04 < 0.05$). The negative (-) mark of t-test scores designate the supremacy of female learners.

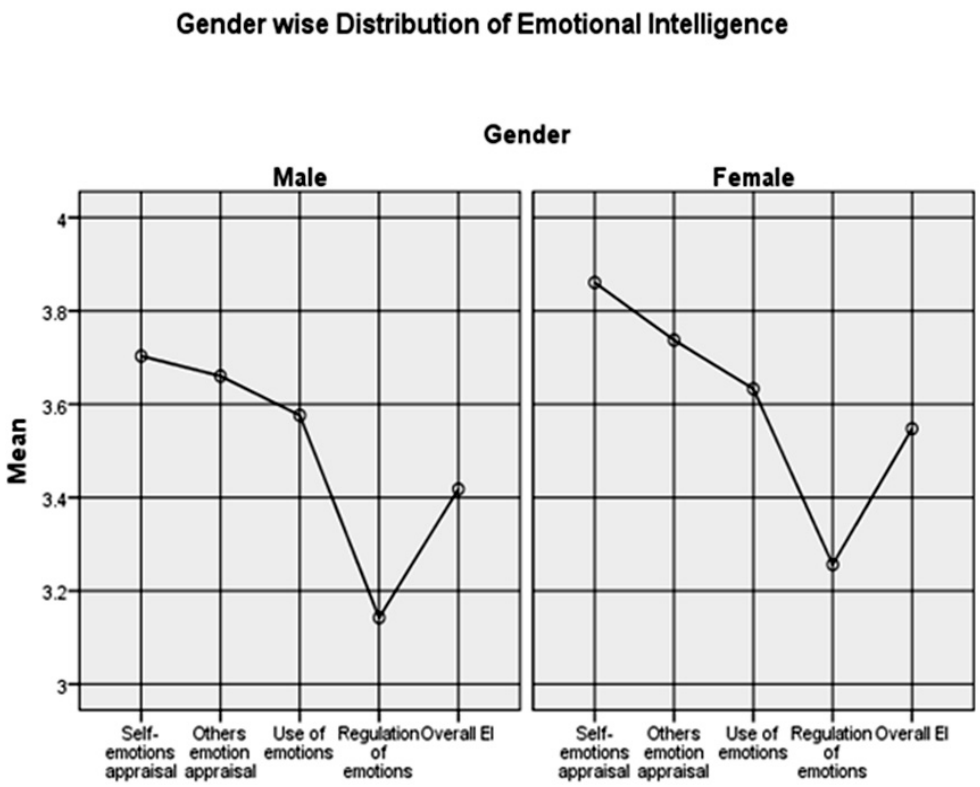

Figure 1. Gender difference of EI

Figure 1 illustrates that the female scores are higher than male. The values on 'regulation of emotion' are lower than the mean line for both male and female. Further, the male scores on 'overall emotional intelligence' are just above the mean line while the mean values of female apprentice are reasonably above the mean line.

Table 4
Gender Wise Mean Scores of EI across Faculties

	Faculty	Self-emotion appraisal	Others emotion appraisal	Use of emotion	Regulation of emotion	Overall EI
Male	Arts & Humanities	*3.49*	*3.36*	*3.19*	*2.97*	*3.19*
	Business & Economics	3.75	3.60	**3.71**	**3.26**	3.46
	Chemical & Life Sciences	3.65	3.70	3.70	3.19	**3.47**
	Physical & Numerical Sciences	**3.79**	3.72	3.53	3.08	3.44
	Social Sciences	3.73	**3.82**	3.63	3.17	3.44
Female	Arts & Humanities	3.72	3.62	3.49	3.11	3.45
	Business & Economics	**4.17**	**4.15**	3.62	3.38	**3.65**
	Chemical & Life Sciences	3.91	3.69	**3.78**	**3.44**	3.59
	Physical & Numerical Sciences	3.76	3.73	3.57	3.24	3.55
	Social Sciences	3.89	3.67	3.77	3.24	3.58

Note: The highest mean values are shown in bold, while the lowest is shown in italic.

Faculty wise distribution of emotional intelligence is shown in Table 4. The lowest score is indicated by female and male learners of Arts and Humanities on 'overall emotional intelligence' and its four dimensions. The female students of Business and Economics were the leading scorers on the factors of 'self-emotion appraisal' and 'others' emotion appraisal'. The female students of Business and Economic faculty have the highest means value (M = 4.17, M = 4.15). Considering male students only, Physical and Numerical Sciences have surpassed with an average value (M = 3.79) on personal emotional assessment. Similarly, male learners of Social Sciences dominated the emotional assessment of 'others' with (M = 3.82).

Likewise, on the facets using emotions and directing emotions, female apprentice of Chemical and Life Sciences faculty took the lead with the highest mean values (M = 5.78, M = 3.44). Considering only male students, the Business

and Economics faulty dominated the rest of faculty with mean scores (M = 3.71, M = 3.26). Further, on 'overall emotional intelligence', the female scholars of Business and Economics surpassed with mean value (M = 3.65). In male population, the learners of Chemical and Life Sciences were the leading scorers with mean (M = 3.47).

Mostly in every faculty, female learners dominated their respective male group except in the faculty of Business and Economic where male students were better only on 'use of emotion'. Similarly, male students of Chemical and Life Sciences were slightly superior to female students on 'others' emotion appraisal.' The data are further illustrated through Figure

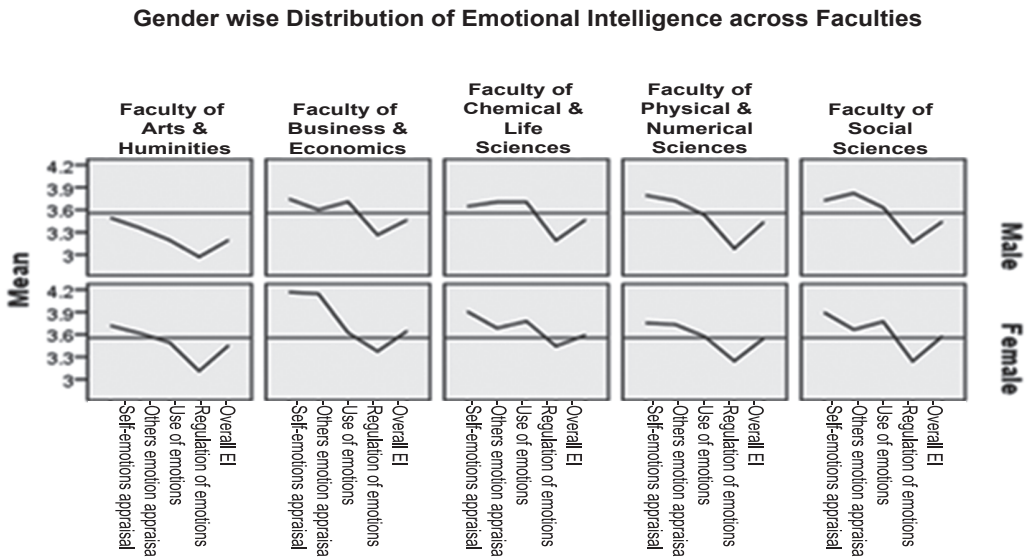

Figure 2. The average distribution of emotional intelligence of different faculties

Figure 2 reveals the dominance of female students superiority on all factors and on 'overall emotional intelligence.' in terms of facilities, the Business and Economics and Chemical and Life Sciences surpassed all. It can be drawn that female students of Business and Economics and Chemical and Life Sciences showed superior level of emotional intelligence as indicated by their scores, which mostly fall above the mean line. Conversely, the majority of the scores of male students are below the mean life representing comparatively lower level of emotional intelligence.

Table 5
Faculty wise ANOVA for EI

		Sum of Squares	df	Mean Square	F	Sig.
Self-emotion appraisal	Between Groups	5.433	4	1.358	1.709	.146
	Within Groups	654.171	823	.795		
Others emotion appraisal	Between Groups	6.990	4	1.748	1.970	.097
	Within Groups	730.240	823	.887		
Use of emotion	Between Groups	14.330	4	3.582	3.927	.004
	Within Groups	750.747	823	.912		
Regulation of emotion	Between Groups	6.956	4	1.739	1.542	.188
	Within Groups	928.401	823	1.128		
Overall EI	Between Groups	3.172	4	.793	1.022	.395
	Within Groups	638.947	823	.776		
	Total	642.120	827			

The outcomes from ANOVA reveal that the only significant difference of emotional intelligence was detected on the 'use of emotion' factor ($F(4, 823) = 3.927$, $p = 0.004 < .05$). The gender variations across faculties on other aspects were found to be insignificant.

Table 6

Multiple comparisons for Emotional Intelligence across Faculties

Tukey HSD

Dependent Variable	**(I) Faculty**	**(J) Faculty**	**Mean Difference (I-J)**	**Sig.**
Use of emotion	Arts & Humanities	Business & Economics	-.310*	.029
		Chemical & Life Sciences	-.356*	.007
		Social Sciences	-.320*	.025

*. The mean difference is significant at 0.05 level.

The outcomes from Tukey test imply that the students of Arts and Humanities were lower than the faculty of Chemical and Life Sciences (MD = - 0.356, p = 0.007 < .05), Business and Economics (MD = - 0.310, p = 0.029 < .05) and Social Sciences (MD = - 0.320, p = 0.025 < .05).

Conclusion

It is worth mentioning that emotional intelligence contributes to a great extent in the learning of individuals in terms of personal development and career growth. Measuring emotional intelligence is a complex phenomenon which requires accurate tools to be developed due to individual differences. Emotional intelligence helps emotional stability and students at the university level or higher degree institutions are expected to be more stable and emotionally intelligent. University education provides a platform to the young students to enter successfully into the job market. Various studies have been conducted to investigate and differentiate between the emotional intelligence of the learners at the graduate and post-graduate levels. This study investigated at both faculty and discipline level. It was further extended to gender in order to look at their emotional intelligence as well.

It can be drawn that female students were found more dominant over male students on emotional intelligence. This superiority was seen prominent on all facets of emotional intelligence along with 'overall emotional intelligence.' It can

be concluded that female learners exhibited meaningful superiority on the 'use of emotion' aspect as shown by t-test. In faculty cluster, the female learners of Business and Economics and Chemical and Life Sciences dominated the various aspects of emotional intelligence. Generally, a majority of the students were better on 'self-emotion appraisal' and poor on 'regulation of emotion.' In addition, there were variations of emotional intelligence across faculty. The students of Arts and Humanities were found to be considerably lower on the 'use of emotion,' particularly, male students.

Discussion

Emotions and emotional capacity play a vital role in a person's life. Comfort, higher accomplishment and coping with life challenges is possible due to this aptitude (Shahzad, Riaz, Begum & Khanum, 2014). It is significant in sustaining warm social relations with friends, family, colleagues and others. Emotional intelligence is also viewed as superior to cognition in clutching achievements.

The study established 'self-emotion appraisal' as bearing the highest average score followed by 'others emotion appraisal'. 'Self-emotion appraisal' is the capacity of a person to recognize his profound emotions and express them spontaneously. People potent with this faculty can sense and admit their emotions quite early (Davies, Stankov & Roberts, 1998; Law, Wong & Song, 2004; Wong, Law & Wong, 2004). It is understood that people are usually superior in identifying and interpreting their personal traits. They have also the capacity to assess and articulate the attributes of other people. Hence, these finding can make sense. These outcomes are in agreement with the findings of Karim (2010) and Libbrecht, Lievens and Schollaert (2010). It is partially affirmed by Ngah and Salleh (2015), who confirm the 'use of emotion' as the second highest preferred aspect.

In behavioral investigations, gender comparison is a vital aspect. This investigation is also intended to study the construct of emotional intelligence in relation to gender. The upshots of this study assert that female students show preeminence in emotional intelligence, which may due to the fact that female are usually preeminent in sensing, appraising and dealing emotions. The superiority of female over male in terms of emotional intelligence is also acknowledged by Brackett, Mayer & Warner (2004), Chaudhry et al. (2013), Makvana (2014) and Rooy, Alonso and Viswesvaran (2004), but denied by Shahzad and Bagum (2012)

who accredited male being better in emotional cognizance. Majid (2012) studied emotional intelligence in terms of gender. They identified variations of emotional intelligence on different aspects of male and female learners. Likewise, Shehzad and Mahmood (2013) examined emotional cognizance of university teachers through administering Bar-On EQ-i:S scale. They identified that female teachers were ahead of male on 'interpersonal aspect' of emotional intelligence. Similarly, Nasir and Masrur (2010) found that there were congruency of scores of emotional intelligence in relation to gender.

The results indicated that the leaners of Management studies were superior on various aspects of emotional intelligence, particularly female students. Chaudhry et al. (2013) also derived the supremacy of female learners in emotional intelligence, which is in harmony with the conclusion of this study. They also established that the learners of Management programs were better than the students of Telecom course in emotional aptitude. Further, the students of Faculty of Arts and Humanities, particularly male learners were found to be significantly lower on the 'use of emotion'. This may be due to the fact that students with frivolous disposition and poor academic accomplishments mostly join the Arts stream. Makvana (2014) investigated emotional intelligence in relation to subject stream, gender and residency. The study provided that there were meaningful differences in emotional capacity of the students of Sciences and Humanities. The learners of science courses were better that arts in dealing emotions-laden situations.

The present study also established 'regulation of emotion' as the weakest area in relation to emotional intelligence. Wong et al. (2004) and Karim (2010) also found lowest score on 'regulation of emotion' aspect. Generally, people find it hard to restore from tough times like sorrow and grief to channelize their emotions in positive direction. It can be deduced that outcomes of this study correspond with the findings from the literature, which establishes the reliability of this investigation.

Recommendations

It can be inferred that mostly learners of all faculty, particularly male students, were lower on the 'regulation of emotion' factor. It is recommended that the curriculum planners and developers may consider and enrich curricula with notions like self-control, self-direction, communication, team spirit, flexibility and optimism. Likewise, the teachers may enrich their instruction to enhance the above

mentioned aspects. Further, learners of Arts and Humanities were found to be significantly poor on the 'use of emotions' factor. The teachers and curriculum developers of these programs may devise strategies to overcome this deficiency through advice, motivation, guidance and counseling activities. In addition, the researchers may focus on probing the causes and possible remedies of the students' weaknesses on 'regulation of emotions.' Similarly, the reasons of inferiority of Art and Humanities on the 'use of emotions' should be investigated and valid resolutions should be provide. Further, WLEIS may be subjected to further psychometric investigation.

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