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THE DIFFERENCE IN EMOTIONAL INTELLIGENCE BETWEEN THE UNDERGRADUATE AND POSTGRADUATE ENGLISH EDUCATION STUDENTS AT THE UNIVERSITY OF BENGKULU

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ABSTRACT

Emotional intelligence (EQ) may affect English learning. However, there have not been many EQ studies, particulary on EQ difference between groups, in Bengkulu. The study aims to explore whether there is a difference in EQ between the undergraduate and postgraduate student groups of the English Education programs at the University of Bengkulu (Unib). The research design was causal-comparative. The sample was taken through cluster sampling from both programs. The instrument was a questionnaire. In data analysis, non-parametric technique was used. The result of Mann-Whitney U test on EQ scores between both groups disclosed that p(0.00398) < α(0.05). In conclusion, there was a significant difference in EQ between the undergraduate and graduate student groups. Futher study is recommended to improve the undergraduate students' EQ.
Keywords: emotional intelligence difference, students, English education

ABSTRAK

Kecerdasan emosional (EQ) dapat mempengaruhi pembelajaran bahasa Inggris. Namun, belum banyak kajian tentang EQ, khususnya pada beda EQ antar kelompok, di Bengkulu. Penelitian ini bertujuan mencari beda EQ antara kelompok mahasiswa program sarjana dan pascasarjana pendidikan bahasa Inggris di Universitas Bengkulu (Unib). Desain adalah causal comparative. Instrumen berupa angket. Sampel diambil dengan cluster sampling dari kedua program. Dalam analisis data dipakai teknik non-parametrik. Hasil Mann-Whitney U test pada skor EQ antara kedua kelompok menunjukkan bahwa p(0.00398) < α(0.05). Kesimpulannya, ada beda signifikan pada EQ antara kedua kelompok mahasiswa. Disarankan penelitian lebih lanjut untuk meningkatkan EQ mahasiswa program sarjana.

Kata kunci: *Beda kecerdasan emosional, mahasiswa, pendidikan bahasa Inggris*

INTRODUCTION

Various components, including intellectual intelligence, can affect learning outcomes. This is the reason that students at various levels of education need to get an IQ (intellectual intelligence) test. However, according to Katyal and Awasthi (2005), students whose development is limited to academic environment may not necessarily be able to overcome various challenges in the future. The brightest learners in the class may be less successful in life than their counterparts who are less intelligent but have more complete personality. Thus, a question could be asked about what helps a person to succeed in life, other than intellectual intelligence.

At the beginning of the XXI century, a new dimension, one which was considered to have a greater role in success than IQ, was introduced, namely, emotional intelligence. Emotional intelligence is believed to be useful for understanding and predicting individual success and achievement in education, work and personal education. According to Goleman (1996), *emotional intelligence* is a person's ability to regulate his/her emotion intelligently and to maintain emotional harmony and expression through self-awareness skills, self-control, self-motivation, empathy and social skills. Emotional intelligence, also called emotional quotient, is abbreviated as EQ.

The relationship between EQ and English mastery can be traced to Krashen's theory (1982), which states that affective factors can affect success in language learning, positively or negatively. In particular, overcoming anxiety, which is part of emotional intelligence, has a positive effect on successful language learning.

Salovey and Mayer (1990) introduces the term *emotional intelligence* (EQ) as the part of social intelligence that involves the ability to monitor oneself and the feelings and emotions of others and use this information to guide thoughts and actions.

Goleman (1996) classified emotional intelligence into 5 aspects, namely, self-recognition, emotional management, self-motivation, recognition of other people's emotions, and relationship building. Next, Goleman (2007) and Team FME (2014) divide emotional intelligence into two major domains, namely, personal competence (intrapersonal component) and social competence (interpersonal component). The first category is personal competence, which is divided into two elements, namely, self-awareness and self-management. The second category is social competence or intrapersonal component,

which is also divided into two elements, namely, social awareness and relationship management.

The exploration of affective domains among students has generally performed more on the IQ aspect, but less on the EQ aspect, but this situation changes. Several studies have shown that EQ plays a very important role in learning English. For example, Karaman (2012) found that while there was no significant correlation between EQ and English proficiency, there was a significant correlation in the interpersonal category of EQ and the mastery of English grammar. Rokni, Hamidi, and Gorgani (2014) found a significant relationship between EQ and proficiency in English as a foreign language, and that female students had better EQ than male students. A similar finding was obtained by Al-Asmari (2014). However, Ghabanci and Rastegar (2014) found that although there was a significant correlation between EQ and reading ability, the correlation was low. Suwarno, Syahrial and Harahap (2016) conducted a research on the relationship between EQ and English achievement among the students of SMKN 3 Bengkulu, but found that there was no relationship between the two variables.

Among these various studies, there has not been a comparison in EQ among various subject groups, especially among student groups in higher education. Such a study is needed to provide a more complete picture of EQ for all levels of education. This study was performed with such background in mind, namely, to compare the EQ beween students from two educational levels.

Therefore, the problem in this study is as follows: Was there a difference in emotional intelligence between the undergraduate and postgraduate student groups of the English language education programs at the University of Bengkulu? Student's emotional intelligence was defined as the score obtained by the student after s/he filled out an EQ questionnaire that was prepared by the researchers.

METHODOLOGY

This study employed a causal-comparative design, one that explores "the causes or consequences of differences that already exist between or among groups of individuals" (Fraenkel & Wallen, 2009, p. 363). It is similar to experiment, with a difference that the dependent variable is not manipulated.

Population and sample

The population included the students of English programs at the University of Bengkulu (Unib). In sample selection, cluster sampling was used, both

at the undergraduate and postgraduate levels. The postgraduate group consisted of 58 students [26 from semester 3 and 32 from semester 1]. The undergraduate group comprised 104 students [32 from semester 5, 36 from semester 3 and 36 from semester 1).

Instrument

To find the students' EQs, a questionnaire was used. It was developed from various sources, e.g., Sucaromana (2010).

Example
Put a check mark (V) for the option that you think is most appropriate to your situation.
I like to have group discussion in preparing assignments.
( ) Frequently; ( ) Often
( ) Sometimes; ( ) Seldom; ( ) Rarely

The questionnaire consisted of a set of statements, which included positive and negative statements, with the following options and weighting.

Positive statements:

Frequently (5), often (4), sometimes (3) seldom (2), rarely (1)

Negative statements:

Frequently (1), often (2), sometimes (3), seldom (4), rarely (5).

A try-out was carried out on the instrument (Arikunto (2010) and showed that the final instrument (comprising 60 items) had an overall reliability of r_{11} = 0.93 (very good).

Data analysis technique

Note: Calculations were carried out online from various statistical websites; these are presented in the result section and quoted in the References).

To compare EQ scores between the graduate and undergraduate groups, the following steps were applied. First, the students' EQ scores were tabulated. Second, the normality test was performed, using the Shapiro-Wilk test.

Third, homogeneity test was performed, with the Lavene test. Fourth, to find the difference between both groups, there were two possibilities:

- If data distribution was normal, the student's t-test for independent samples was used.
- If data distribution was not normal, a non-parametric technique was employed, namely, the Mann-Whitney U test for independent samples.

RESULT AND DISCUSSION

Result

The study investigated the difference in EQ between the English postgraduate student group and the English undergraduate student group at Unib.

To answer this problem, analyses were carried out in the following order:

1. Tabulation of scores

2. Normality test
3. Homogeneity test
4. Mann-Whitney U test (with relevant hypotheses).

Tabulation of scores

Students' EQ scores were presented in the appendix, while their summary is presented in Table 1. [Note: The data were from Suwarno et al. (2019)].

Table 1. Summary of Descriptive Statistics

Attribute	*Post-graduate*	*Under-graduate*
Mean	231.28	220.50
Median	236.00	223.00
SD	32.15	23.10
Variance	1033.85	533.83
Range	205.00	114.00
Minimum	95.00	147.00
Maximum	300.00	261.00
Sum	13414.00	22932.00
Count	58.00	104.00

Table 1 shows that the mean for P is 231.28 and that for U is 220.50. There may be a significant difference between both groups. To determine the type of test for this difference, a normality test needs to be performed first.

Normality test

The normality test, the Shapiro-Wilk test, was carried out online (SciStatCalc, 2013), with $\alpha = 0.05$ (see the summary in Table 2). The test disclosed that p (0.000012) < α (0.05).

Table 2. Result of normality test

Attribute	Value
Number of sample (n)	**162**
Mean	**224.36**
Variance	**734.39**
p	**0.000012**

Thus, the data were not normally distributed and the analysis on group difference needs to involve a non-parametric test. However, equality of variance test needs to be carried out beforehand.

Mann-Whitney U test

To find the difference in EQ scores between both groups, the Mann-Whitney U test was carried out. This was also conducted online [(Social Science Statistics, 2019b), with $\alpha = 0.05$, and its summary is in the Appendix]. Before the test was performed, these hypotheses were formulated:

H1: There was a significant difference in EQ scores between the P group and the U group.

H0: There was no significant difference in EQ scores between P group and U group.

Note: P: postgraduate; U: Undergraduate

The Mann-Whitney U test showed that p (0.00398) < α (0.05). Thus, H0 was rejected and H1 was accepted. This meant that there was a significant difference in EQ

score between the postgraduate student group and the undergraduate student group.

Equality of variance test

An equality of variance test, the Lavene test, was carried out online (Social Science Statistics, 2019a), with $\alpha = 0.05$. The summary is in Table 3. The test revealed that p (0.13) > α (0.05). This meant that the both groups were homogeneous, with respect to variance. Thus, further test, the non-parametric Mann-Whitney U test, could be carried out

Table 3. Equality of Variance Test

Source	SS	df	MS	F	p
Between groups	762.23	1	762.24	F=2.30	**P=0.13**
Within groups	52972.11	160	331.08		
Total	**53734.34**	**161**			

Discussion

This study showed that there was a significant difference in EQ between the postgraduate and undergraduate groups. Thus, this study complements other studies, which have not performed such comparison.

Various studies show the significance of EQ studies. Some studies, such as Karaman (2012) and Ghabanci & Rastegar (2014), reveal mixed results in terms of the relationship between EQ and learning achievement, especially English. However, other studies, such as Rokni et al. (2014) and Al-Asmari (2014), found that EQ and English achievement have positive correlations. Thus, teaching and learning activities need to improve student's EQ.

According to the acquisition and learning theory, the affective filter hypothesis states that emotional factors greatly affect students and determine the extent to which input can be absorbed. Brown (2001) suggests that affective factors can influence success in language learning. According to Krashen (1982) and Brown (2001), negative emotions prevent efficient processing of language input, and, conversely, positive emotions help the processing efficiency. It can be concluded that affective factors can affect the success of learning language positively or negatively. In particular, overcoming anxiety, which is part of emotional intelligence, has a positive effect on successful language learning.

The undergraduate and postgraduate students of the English education programs are trained to be future teachers. In this respect, Sucaromana (2012) emphasizes that a teacher needs to be emotionally intelligent in order to develop an emotionally intelligent classroom. The teacher needs to develop empathy, cooperation, and management of emotions and respect, so that s/he could inspire these traits among her/his students. S/he also needs to take care of her/his students' emotional intelligence. For example, s/he needs to be able to perceive her/his students' body language in order to create a positive learning experience. S/he also needs to manage the class effectively, through using emotional intelligence, while recognizing and managing her/his own feelings. Considering the EQ importance and the result of this study, there may be a need for improving EQ among the undergraduate students. This could be done, for example, through the classroom management course in the undergraduate program. Further study in this direction is thus recommended.

Limitation

In this article, there was no descriptive analysis on the students' scores into good, rather good, moderate, poor and very poor categories. This analysis was developed in a separate article.

No analysis was performed on differences, which may exist, among sub-groups (postgraduate group semesters 1 and 3 and undergraduate group semesters 1, 3 and 5).

Finally, there was no attempt to find correlation between EQ and English learning achievement, because the corresponding English scores were not available within the research schedule.

Conclusion

The previous analysis revealed that there was a significant difference in emotional intelligence (EQ) between the postgraduate and undergraduate groups. It is recommended to improve the undergraduate students' EQ, e.g., through classroom management course. Further research is recommended to find the relationship among more factors, such as emotional intelligence, anxiety levels, and learning achievement in English.

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Appendix 1. Students's EQ scores

Table 1. Students' scores for postgaduate group & undergraduate group

Postgraduate				Undergraduate							
No	Score	*No*	Score	*No*	Score	*No*	Score	*No*	Score	*No*	Score
1	261	*30*	237	*1*	206	*30*	223	*59*	232	*88*	217
2	229	*31*	244	*2*	220	*31*	225	*60*	238	*89*	241
3	284	*32*	228	*3*	230	*32*	235	*61*	206	*90*	226
4	196	*33*	227	*4*	246	*33*	205	*62*	218	*91*	200
5	248	*34*	211	*5*	211	*34*	191	*63*	216	*92*	251
6	235	*35*	239	*6*	177	*35*	215	*64*	224	*93*	244
7	238	*36*	254	*7*	206	*36*	222	*65*	252	*94*	190
8	249	*37*	244	*8*	195	*37*	182	*66*	216	*95*	232
9	95	*38*	149	*9*	202	*38*	175	*67*	217	*96*	164
10	252	*39*	247	*10*	201	*39*	240	*68*	217	*97*	226
11	187	*40*	258	*11*	175	*40*	228	*69*	241	*98*	182
12	214	*41*	248	*12*	246	*41*	183	*70*	237	*99*	244
13	251	*42*	222	*13*	232	*42*	230	*71*	243	*100*	221
14	236	*43*	217	*14*	225	*43*	187	*72*	223	*101*	231
15	218	*44*	203	*15*	219	*44*	214	*73*	206	*102*	231
16	212	*45*	227	*16*	230	*45*	251	*74*	238	*103*	260
17	179	*46*	255	*17*	244	*46*	236	*75*	147	*104*	226
18	229	*47*	226	*18*	241	*47*	218	*76*	231		
19	197	*48*	248	*19*	219	*48*	212	*77*	244		
20	215	*49*	236	*20*	219	*49*	179	*78*	255		
21	233	*50*	237	*21*	222	*50*	229	*79*	220		
22	279	*51*	236	*22*	216	*51*	197	*80*	242		
23	280	*52*	228	*23*	203	*52*	215	*81*	180		
24	256	*53*	264	*24*	202	*53*	220	*82*	227		
25	193	*54*	222	*25*	228	*54*	219	*83*	157		
26	300	*55*	207	*26*	261	*55*	243	*84*	254		
27	272	*56*	216	*27*	215	*56*	243	*85*	237		
28	237	*57*	223	*28*	215	*57*	228	*86*	245		
29	238	*58*	248	*29*	258	*58*	232	*87*	242		

Note: Data source was Suwarno et al. (2019)
Postgraduate group: No. 1-26: sem. (semester) 3; no. 27-58: sem. 1
Undergraduate group: No.1-32: sem. 5; no. 33-68: sem. 3, no. 69-104 sem. 1.

Appendix 2. Result of Mann-Whitney U-Test

Table 2. Result of Mann-Whitney U-Test
between Postgraduate Group & Undergraduate Group

	Result Details
Signicance Level: 0.05 *1 or 2-tailed hypothesis?:* Two-tailed	*Sample 1* Sum of ranks: 5552.5 Mean of ranks: 95.73 Expected sum of ranks: 4727 Expected mean of ranks: 81.5 U-value: 2190.5 Expected U-value: 3016 *Sample 2* Sum of ranks: 7650.5 Mean of ranks: 73.56 Expected sum of ranks: 8476 Expected mean of ranks: 81.5 U-value: 3841.5 Expected U-value: 3016 *Sample 1 & 2* Combined Sum of ranks: 13203 Mean of ranks: 81.5 Standard Deviation: 286.2423
	The U-value is 2190.5. Result 2 - Z-ratio The Z-Score is -2.88217. The p-value is .00398. The result is **significant** at p < .05.

Note: Sample 1: Postgraduate group; sample 2: undergraduate group