

The Relationship of Emotional Intelligence on Leadership Style of Academic Administrators in Selected HEIs

Dr. Jenny D. Ramirez Adamson University, Philippines Corresponding Author email: jdramirez@ceu.edu.ph

Revised: 18 December 2023 Received: 15 November 2023 Accepted: 19 December 2023

Available Online: 20 December 2023

Volume II (2023), Issue 4, P-ISSN – 2984-7567; E-ISSN - 2945-3577

Abstract

Aim: This study explored the relationship of emotional intelligence of the academic administrators and the assessment of teachers on the leadership style of the academic administrators in selected Higher Education Institutions.

Methodology: There were 57 teacher-respondents and 27 administrator-respondents in the online survey and interview. Frequency count and percentages, arithmetic means and standard deviation were used to describe the leadership and trait emotional intelligence, while Pearson Coefficient of Correlation was used to describe the relationships of the academic administrators' leadership style as assessed by the teachers and the academic administrators' self- assessment of their trait-emotional intelligence.

Results: Among the nine leadership-styles, a hybrid leadership style which is autocratic-transformational leadership style emerged as the highest with a composite mean of 4.52 and a standard deviation of 0.64. This was followed by two non-hybrid leaderships styles of transactional and transformational leadership styles. When it comes to the Emotional Intelligence of the academic administrators, the Well-being as one the facets of emotional trait include trait empathy, emotion perception and relationships.

Conclusion: The trait-emotional intelligence drives the academic administrators to be effective leaders considering all leadership styles are significantly correlated with their trait emotional intelligence.

Keywords: Emotional Intelligence, trait emotional, leadership styles, administrators

INTRODUCTION

People have emotions. How people manage those emotions help them to determine their effectiveness in relating with others. As educational leaders, people often have daily encounters with students, parents, government officials and the community as a whole. With all these encounters, they communicate - which put them at times or in most of the time in stressful situation or become emotional.

For many years, leaders have relied on quantifiable means or those hard skills that can be measured in spreadsheets to make decisions while dismissing the importance of emotional intelligence or soft skills like selfawareness, self-control and sociability in managing people. According to Wong (2016), a leader will meet people "with different levels of ability in handling their emotions". How these leaders interact can result to a positive or negative outcome for all parties involved. Leaders need a strategy on how to manage their emotions and the emotion of other people. Leaders set the tone of their organization. If they lack emotional intelligence, it could have more farreaching consequences, resulting in lower employee engagement and a higher turnover rate.

During the pandemic, when physical interaction was prohibited as part of the health protocol, teachers and other educators still need to communicate and collaborate with each other. They need to lead, communicate well and be in proper composure in dealing with their students and colleagues even virtually. With the anxiety and stress looming in the atmosphere at that time, interactions with their family (because they were working at home), colleagues and students, the more they need to have a better and stronger emotional intelligence. A wrong decision or outburst while online, or in video-conferencing, and all other virtual encounters might result to consequences that later they will regret.

JOINED ETCOR เาดาพยอ

Sta. Ana, Pampanga, Philippines



The Exigency P - ISSN 2984-7842 RUN# E - ISSN 1908-3181





Website: https://etcor.org

School leaders are always in the spotlight and must remember that they present an emotional model for others to follow. Educational leaders can have a profound influence on others. If an educator's actions are impulsive in nature, then the results of their actions may be disastrous. How emotional intelligence influence leadership and how this influences affect educators' leadership style in Higher Education Institutions (HEIs) are the subject of this study. Goleman, Boyatzis and McKee (2002) found that emotional intelligence competencies are not innate talents; meaning that emotional intelligence is a set of skills and behaviors in which some people may have the proficiency in certain aspects of emotions but it can be learned, developed , and enhanced. Learned abilities on various aspects have a unique contribution to making leaders more resonant, and therefore more effective.

The findings from foreign and local literature have articulated the importance of emotional intelligence in ensuring effective leadership for leaders in general and also for school heads and administrators. However, in the context of the Philippines, few studies have been conducted on emotional intelligence in relation to school leadership. This study therefore contributes to the limited body of knowledge on emotional intelligence and school leadership in the Philippines.

There is a dearth on the study of leadership style specific to its relationship to trait-emotional intelligence. Consequently, studies on leadership styles and emotional intelligence in higher education institution are limited, if there are, most of them were conducted more than 10 years ago. Considering that this study was conducted during the time of Covid-19, therefore this is an important and pivotal study to present fresh findings focusing on the influence of trait-emotional intelligence and leadership preferences of educators in higher education institutions, hence this study could fill-in the huge gap in the body of research pertaining to this literature.

Hence, this study is aimed to determine the relationship of emotional intelligence to the perceived leadership styles of academic administrators in three selected HEI's in Manila.

Objectives

This study was conducted to determine the influence of leadership style to the emotional intelligence of academic administrators in selected HEI's.

Specifically, this study sought to answer the following queries:

- 1. What is the demographic profile of the two groups of respondents in terms of the following?
 - 1.1 Teachers
 - 1.1.1 Sex
 - 1.1.2 Age
 - 1.1.3 Educational Attainment
 - 1.1.4 Teaching experience
 - 1.2 Academic Administrators
 - 1.2.1 Sex
 - 1.2.2 Age
 - 1.2.3 Educational Attainment
 - 1.2.4 Teaching experience
- 2. What is the assessment of the teacher respondents on the leadership style of the academic administrators in terms of:
 - 2.1 Non- hybrid leadership style
 - 2.1.1 Transactional leadership
 - 2.1.2 Transformational leadership
 - 2.1.3. Democratic leadership
 - 2.1.4. Autocratic leadership
 - 2.1.5. Laissez-faire leadership
 - 2.2 Hybrid leadership style
 - 2.2.1 Autocratic-transformational
 - 2.2.2 Autocratic -transactional
 - 2.2.3. Democratic-transformational
- 3. Is there a significant difference in the assessment of the teacher-respondents on the leadership style of academic administrators when teachers are grouped according to profile?
- 4. What is the level of the emotional intelligence of the academic administrators in terms of:
 - 4.1 Emotionality

348

: https://etcor.org : https://www.facebook.com/EmbracingTheCultureOfResearch : https://twitter.com/ETCOR_research : https://tinyurl.com/YouTubeETCOR : embracingthecultureofresearch@etcor.org : 0939-202-9035

Thank you for embracing the culture of research with us!





- 4.2 Sociability
- 4.3 Well-being
- 4.4 Self-control
- 4.5 Global traits
- 5. Is there a significant difference in the level of trait-emotional intelligence of academic administrators when they are grouped according to profile?
- 6. Is there a significant relationship between the assessment of teachers on the leadership style of academic administrators and the trait-emotional intelligence of the academic administrators?
- 7. Based on the results of the study, what action plan can be proposed to enhance the leadership style and emotional intelligence of academic leaders to better serve the university?

Hypothesis

The following were tested in this study:

Hypothesis 1: There is no significant difference on the assessment of the teacher-respondents on the leadership style of academic administrators when teachers are grouped according to profile.

Hypothesis 2. There is no significant difference in the level of trait-emotional intelligence of academic administrators when they are grouped according to profile

Hypothesis 3. There is no significant relationship between the assessment of teachers on the leadership style of academic administrators and the trait-emotional intelligence of the academic administrators.

METHODS

Research Design

The study utilized a quantitative research design, specifically descriptive comparative correlations research design. In analyzing the data gathered through the online survey, and establishing significant differences and relationships among variables, it requires quantifiable information, thus a quantitative analysis was employed.

The study made use of descriptive-value, correlational design to determine the relationship of emotional intelligence to the leadership styles of academic administrators in selected HEI's. The descriptive research fits this study since it described the leadership preferences alongside with the educators' emotional intelligence and the interplay of these variables.

Population and Sampling

This study involved college instructors/professors and academic administrators from three selected recognized universities in Manila. These three universities were chosen based on their similarities in terms of the type of schools like a private recognized higher education institution and access given to the author to conduct this study among the educator-respondents.

These educators comprise of full-time faculty members who have been in service for at least 3 years in the university, deans, assistant deans, academic heads, program chairpersons and other academic-administrators who currently hold a full-time job as administrator and or concurrently took a part-time teaching position in the university.

Considering the pandemic condition when this study was conducted, the respondents were selected using a purposive- quota sampling procedure. Thirty (30) respondents from each University were selected comprising of 20 teachers and 10 academic administrators who were subject for evaluation of their leadership style. From a total of 60 teachers and 30 academic administrators on 57 teachers and 27 administrators responded in the online survey which brought to 95% and 90% percentage participation from teachers and administrators respectively.

Instrument

Two valid and reliable instruments were used to gather data on leadership styles and emotional intelligence of the research participants.

1. The Vansimpco Leadership Survey (VLS)

The VLS, an instrument developed by Drs. Barry Vann, Aaron Coleman, and Jennifer Simpson (2014), is selected as the ideal instrument for this study because of its validity and versatility. The VLS provides reliable feedback on nine different leadership styles based on its 27 questions (Vann et al., 2014). VLS is a more versatile bilateral instrument with blended leadership styles. The results of the reliability test on the VLS reported a Pearson'

349

: https://etcor.org : https://www.facebook.com/EmbracingTheCultureOfResearch : https://twitter.com/ETCOR_research : https://tinyurl.com/YouTubeETCOR : embracingthecultureofresearch@etcor.org : 0939-202-9035





Product Moment Correlation r produced a significant result, (r = 0.91, p < .001), thereby making the VLS a dependable and effective instrument for testing leadership. The universality of the VLS allows researchers in virtually any setting to gather data to make decisions regarding leadership initiatives, training, and employment. The possibilities are limitless for innovative leaders and researchers to better understand current leadership styles of members of their selected populations (Vann et al., 2014).

2. Trait Emotional Intelligence Questionnaire- Short Form (TEIQues-SF)

The Trait Emotional Intelligence Questionnaire, or TEIQue, is an openly accessible instrument developed to measure global trait emotional intelligence. (https://psychometriclab.com) . Based on the Trait Emotional Intelligence Theory, the Trait Emotional Intelligence Questionnaire is a significant part of research in emotional intelligence (EI). The Trait Emotional Intelligence Questionnaire exists in a long form and a short form. TEIQUE-LF consists of a 153item self-report using 15 subscales and requires 25 minutes to complete. TEIQue-SF consists of a 30-term questionnaire. The TEIQue SF was chosen for this study because of its applicability for an online survey. respondents use a 7-point scale for the items. This 30-item form includes two items from each of the 15 facets of the TEIQue including two global traits; adaptability and self-motivation. Items were selected primarily on the basis of their correlations with the corresponding total facet scores, which ensured broad coverage of the sampling domain of the construct.

All TEIQue variables (facets, factors, and global score) had reasonably normal distributions. None of the variables had a skew or kurtosis greater than 1. Eight of the 15 facets had high alphas (between 0.70 and 0.85), six showed moderate levels (between 0.63 and 0.68) and one (relationships) showed a low level (0.55). Reliabilities were satisfactory for all four TEIQue factors; Well-being (0.82), Self-Control (0.69) Sociability (0.78), and Emotionality (0. 70). The reliability of the global trait EI score was high at a=0.86). Of particular interest to many users is the robustness of the alphas, which remain strong (especially at the factor level and, without exception, at the global level) even in small sample research (N < 50). Although a systematic quantitative study would be necessary to evaluate the effects of sample size variation on the internal consistencies of the TEI Que variables, based on scoring of over seven dozen datasets from many countries suggests that users of the inventory can expect reliable measurement in a wide range of contexts.

Data Collection

Upon the approval and permission of concerned authorities to conduct this proposed study, the questionnaire and interview protocol, the researcher administered the questionnaire to the target respondents through Google Forms. Data collection and retrieval follows. Microsoft Excel particularly the Data Analysis Tool pack was used to analyze and communicate the results.

Part 1 of the survey questionnaire is about the profile of the teachers and academic administratorrespondents, Part 2 is about the leadership style using the VLS survey instrument and Part 3 is the emotional intelligence survey using the TEI Que-SF instrument to determine and describe the emotional intelligence of the academic administrators. The teachers evaluate the academic administrators' leadership style.

An informed consent was provided as proof that the participant was protected, and his rights were expressed. The names of participants were not revealed to preserve their private and confidential responses as per ethics in research.

Treatment of Data

Gathered data were processed using the Microsoft Excel Data Analysis Tool Pack. Statistical treatments used in descriptive analysis include:

- 1. Frequency count and percentages were used to describe the profile of the respondents.
- Arithmetic means and standard deviation were used to describe the leadership style and trait emotional intelligence of the academic administrators.
- 3. t-test was used to determine the significant differences between two means of leadership style and sex profile Of the respondents. It was also used to test the significance of correlation coefficients.
- F-test was used to determine the significant differences of leadership style when grouped according to the r Respondents' profile. The level of confidence was set at 5%.
- 5. Pearson Coefficient of Correlation (Pearson r) was used to describe the relationships of the academic administrators' leadership style as assessed by the teachers and the academic administrators' self-assessment of their trait-emotional intelligence.



Ethical Considerations

The following ethical guidelines were considered by the researcher in the gathering of data:

- 1. Protecting the anonymity and confidentiality of research participants. In conducting the respondents' answers, the researcher was discreet enough about the demographic profile and make a personal commitment to protect the identities of the participants. Confidentiality was maintained all throughout the research from data gathering to data analysis.
- 2. The sensitivity check on the questions used were schemed and checked.
- 3. The researcher was aware and sensitive the differences in age, sex, class, status, and culture that were raised ethical issues during the course of the respondents' discussion or during the data gathering.
- 4. The researcher sought the informed consent to the schools included in the research, explained the purpose of the research, before proceeding to the data gathering. The participating schools gave a certified document that the researcher undergoes ethical research procedures.
- 5. The researcher recognized that respondents are autonomous people who share information willingly. Respondents were given opportunities to exercise their rights as autonomous persons to voluntarily accept or refuse to participate in the study. The dignity of all respondents were respected. The researcher also considered the anonymity of the respondents throughout the entire duration of data gathering, writing and publication. Codes were used in most cases.
- 6. The researcher personally gathered the data.
- 7. The researcher exercised integrity of data by maintaining a clear and complete record of raw data that were acquired.

RESULTS and DISCUSSION

This study investigated the relationship between the leadership style and emotional intelligence of academic administrators of selected higher education institutions in Manila. With the aim to describe and establish relationship between leadership styles and emotional intelligence of academic administrators, this mix-method analysis of the phenomenon hopefully provided needed explanations of the phenomena.

The findings of this study are presented in the following discussions based on the analysis and interpretations of data. The findings are arranged according to the same sequence in the Statement of the Problem in Chapter 1.

1. Demographic Profile of Educators in HEI's

Information of the basic characteristics of the respondents is necessary and essential in this research study to provide a clearer interpretation of findings presented later in the study and can provide an approximate indication of the representativeness of the survey.

Table 1 presents the profile of the respondents in terms of sex, age, educational attainment and work experience in the University they're teaching or working as academic administrator.

The table clearly reveals that participants in this study are mostly female. Female outnumbered male respondents which accounts for 56% while males at 44%. In many studies, females dominate particularly in the field of education. In the 2017 Global Gender Gap Report of the World Economic Forum (WEF), which states that, on average, men are underrepresented in the fields of education, health, and welfare whereas women are underrepresented in the Science, Technology, Engineering, and Mathematics (STEM) fields (WEF, 2017).

Sta. Ana, Pampanga, Philippines

iJOINED ETCOR เาด้างยอ P - ISSN 2984-7567 E - ISSN 2945-3577





The Exigency P - ISSN 2984-7842 E - ISSN 1908-3181





Website: https://etcor.org

Table 1

The Respondents' Profile											
Profile	Sex	Fa	aculty	Acad	emic Admin		Total				
		f	%	f	%	f	%				
Sex	Male	26	46%	9	33%	37	44%				
	Female	31	54%	18	67%	47	56%				
	Total	57	100%	27	100%	84	100%				
Age group	61 & over	1	2%	0	0	1	1%				
	51-60	28	49%	8	30%	36	43%				
	41-50	15	26%	16	59%	31	37%				
	31-40	10	18%	3	11%	13	15%				
	21-30	3	5%	0	0-	3	4%				
	Total	57	100%	27	100%	84	100%				
Educational	P. Graduate	1	2%	2	7%	3	4%				
Attainment	Doctoral	15	26%	10	37%	25	30%				
	Masteral	40	70%	15	56%	55	65%				
	Bachelor	1	2%	0	0	1	1%				
	Total	57	100%	27	100%	84	100%				
Experience	15& over	26	46%	6	22%	32	38%				
	12-14	13	23%	10	37%	23	27%				
	9-11	14	25%	8	30%	22	26%				
	6-8	3	5%	3	11%	6	7%				
	3-5	1	2%	0	0	1	1%				
	Total	57	100%	27	100%	84	100%				

From a total of 84 participants, distributed to 57 teachers and 27 academic administrators, mostly are in the age range of 51-60 years old which accounts for a 49 % of the total teacher-respondents, and 59% of the total academic administrators' respondents at the age range of 41-50 years old. The combined total brings to 43% of the total respondents at the age range of 51-60 years old and 37% at the age range of 41-50 years old. If combined, this will constitute a majority of 80% in the age range of 40-60 years old. It is sufficient to say that the faculty and school administrators involved in this study are in their senior years - an indication that the respondents are experienced teachers and educational leaders.

Psychological studies have shown that older leaders have some distinctive qualities compared to younger leaders. According to Truxillo and Burlacu (2015), the age of a leader or subordinate can significantly impact how they view and interact with one another. For Kearney (2008), age moderated the relationship between transformational leadership (comprised of charisma, inspirational motivation, intellectual stimulation, and individualized consideration). This proves to show the relationship of age to leadership qualities which will be discussed in the succeeding pages of this chapter.

As expected, most of the respondents have completed their masters' degree which is required in teaching at the tertiary level in the Philippines. About 65% obtained their masters' degree and 34% obtained their doctorate degree and post-graduate studies. Only about 1% who have not obtained a master' degree yet. This respondent actually is in the process of completing academic requirements (thesis writing), a tenured faculty member and academic administrators.

The selected universities as an academic institution strictly adhere to the requirements stipulated by the Commission on Higher Education, which requires its faculty members to have at least a Master's degree as a requirement to teach in the tertiary level. This only means that these Universities find the significance of educational attainment of its faculty in the process of providing quality education to its students by providing them opportunities to undergo various continuing education programs.

This outcome reveals that the respondents of this study are truly representatives of educational leaders who can provide a better perspective of the tertiary education system and its prevailing condition especially during the pandemic and post-pandemic stages of tertiary education. Ideally, school leaders would have a few years of experience in the classroom to truly understand students and learning before they take a building role.



The table shows that teachers about 37% have 15 or more years of teaching and the academic administrators have been in the University for 12-14 years. It would suffice to say that the respondents in this study are well-immersed in university teaching and or administrative work with more than 10 years of experience hence considered and identified as educational leaders.

Academic Administrators' Leadership Styles

Table 2 presents the leadership style of HEI's academic administrators as assessed by the teachers.

Among the nine leadership-styles, a hybrid leadership style which is autocratic-transformational leadership style emerged as the highest with a composite mean of 4.52 and a standard deviation of 0.64. This was followed by two non-hybrid leaderships styles of transactional and transformational leadership styles. The teachers on the average strongly agree on the provisions that the academic administrators display an autocratic-transformational leadership style in managing the school. It means to say that the academic leaders practice both an autocratic leadership and transformational leadership.

This hybrid leadership style can be used during times of change when involvement and inclusion are desired from followers regarding the decision-making and communication process. This style can also be adopted when mentoring opportunities are presented, both for the leader and for emerging employees (Vann et al, 2014) . Since it is a hybrid leadership style, the leader may need to utilize more or less Autocratic or Transformational Leadership strategies, depending on the situation.

> Table 2 Leadership Style of Academic Administrators in HEI as Assessed by Teachers

Leadership Style of Addactine Administrators in Till as Assessed by Teachers										
Leadership Style	Composite Mean	SD	Rank	Interpretation						
A. Non-hybrid										
 Transactional 	4.45	0.61	2	Α						
 Democratic 	4.36	0.76	5	Α						
 Autocratic 	4.23	0.77	7	Α						
 Transformational 	4.43	0.59	3	Α						
Laissez Faire	4.01	0.77	8	Α						
B. Hybrid										
Autocratic-transformational	4.52	0.64	1	SA						
Autocratic-transactional	4.33	0.76	6	Α						
Democratic-transformational	4.41	0.63	4	Α						
Democratic-transactional	3.50	0.94	9	Α						

Scale Interpretation. 4.51-5.00. Strongly Agree (SA); 3.51-4.50- Agree(A); 2.51-3.50- Neutral (N); 1.50-2.50-Disagree (D); 1.00-1.50 - Strongly Disagree (SD)

Autocratic leadership is helpful in situations where an organization faces constant change or a crisis. It will be able to react to the situation promptly compared to other leadership style. The dynamism of schools like the HEI's will require an authoritarian leader to cope with the changes brought by technology, political situation, demands from students and parents, economic crisis and even recently the Covid 19 pandemic. Transformational leadership on the other hand, assumes institutions need and require a transformation; that innovation is always preferable to the status quo, and that followers are eager to behave personal and intimate relationships with their leaders. Transformational leaders achieve their results through personal charisma, charm, clear vision, and passion. Followers of transformational leaders believe themselves valued as an individual, and often feel empowered to perform better. (Vann et al, 2014)

Second in rank is transactional leadership, a non-hybrid leadership style, which obtained a composite mean of 4.45 and a standard deviation of 0.61. Transactional leaders are leaders who lead by rules and regulations to complete their objectives on time or move people and supplies in an organized way. Transactional leaders are resultoriented. They set the criteria for their workers according to previously defined requirements. Commonly called as managerial leaders, these administrators work best with employees who know their job well and are motivated by



reward-penalty system. The above leadership traits aptly describes the respondent administrators because as educators, they need to abide by and implement the policies of the University and the CHED.

According to Flynn(2019), Transactional leaders relies on authority to motivate employees. Transactional leader works best in mature organizations that already have clearly defined structure and goals, to keep them on track, and reinforce the status quo. Examples of transactional leaders include managers, who tend to focus on supervision, processes and follower's performance.

Third in rank is transformational leadership a non-hybrid leadership style with a composite mean of 4.43 and a standard deviation of 0.59

Transformational leadership is a style whereby leaders influence, inspire, and encourage employees to deliver positive change. They work with teams beyond their immediate self-interests to identify needed change and create a vision to guide that change. They lead by example and strive for a strong sense of organizational culture, employee ownership, and autonomy in the workplace—motivating individuals without micromanaging. In education, these leaders encourage both students and teachers to greater levels of achievement (Fontein, 2022).

The three lowest composite means obtained are the Democratic-transformational leadership, Autocratic and laissez-faire leadership.

The hybrid leadership style of democratic-transformational although agreeable among teachers, failed to reach the rank to be considered as preferred leadership style. Laissez-faire leaders take a "hands off" approach to leadership which is an opposite of democratic and transformational leadership. These leaders believe that followers know their role and job better than they do, and, thus, should be left alone. Furthermore, a leader may pose as democratic to placate followers but has no real intention of truly implementing the ideas of others. Ironically enough and often downplayed in the literature, to have a truly democratic leadership style requires someone willing to exert their will upon the group to maintain order and keep conservations and ideas germane.

Educators' Leadership Styles as assessed by teachers grouped according to sex, age, education, and years of work experience profile.

Table 3 presents the academic administrators' leadership styles as assessed by teachers when grouped according to sex.

Based on the highest arithmetic mean obtained, the academic administrators leadership style as assessed by teachers were identified. The table reveals that male and female teachers do not differ significantly on their assessments of the administrators' leadership style as shown by their mean ratings of 4.55 and 4.56 respectively. The table reveals that female teachers' assessment of their leaders' leadership style is almost the same with their male counterparts.

The table further reveals that the mean differences of each of the leadership style are not significant. Therefore, sex is not a differentiating factor of leadership style. Therefore, the null hypothesis of no significant difference is accepted at 5% level of significance.

It is worth to note that the academic administrator's leadership style as assessed by the teachers revealed no significant differences between male and female teachers' assessment. While the female teachers outnumbered the male teachers, their point of view with regards to their academic administrators as leaders were just the same.



Table 3 Significant Differences on Means of Academic Administrators' Leadership Styles as Assessed by **Teachers Grouped according to Sex.**

Leadership Style		Mean	SD	Comp.	Sig	Decision	Interpretation	
A. Non-hybrid	Sex			t- value		Но		
Transactional	Male	4.45	0.63	-0.50	0.31	Accepted	Not Significant	
• ITalisactional	Female	4.45	0.59	-0.30	0.51	Accepted	Not Significant	
Democratic	Male	4.39	0.74	-1.48	0.07	Accepted	Not Significant	
Democratic	Female	4.46	0.63	1.40	0.07	Accepted	Not Significant	
Autocratic	Male	4.25	0.75	-0.45	0.32	Accepted	Not Significant	
Autocratic	Female	4.24	0.69	0.13	0.52	Accepted	Not Significant	
Transformational	Male	4.46	0.58	-0.10	0.46	Accepted	Not Significant	
Transformational	Female	4.46	0.52	0.10	0.10	Accepted	Not Significant	
Laissez faire	Male	3.48	0.74	0.30	0.38	Accepted	Not Significant	
Laissez faire	Female	3.46	0.69	0.50	0.50	Accepted	110t Significant	
B. Hybrid								
Autocratic-	Male	4.55	0.61	-0.73	0.23	Accepted	Not Significant	
transformational	Female	4.56	0.53					
Autocratic-	Male	4.39	0.72	-0.45	0.33	Accepted	Not Significant	
transactional	Female	4.37	0.63					
Democratic-	Male	4.40	0.61	-1.04	0.15	Accepted	Not Significant	
transformational	Female	4.38	0.60					
Democratic-	Male	3.47	0.89	0.79	0.21	Accepted	Not Significant	
transactional	Female	3.47	0.90					

Table 4 presents the leadership styles grouped according to age of teacher- respondents. In terms of age, the leadership styles do not differ significantly as a whole, the table reveals. However, two leadership styles appeared to have significant differences when it comes to age. These leadership styles are democratic leadership and democratic-transformational- leadership. For democratic leadership, the obtained F-value in the analysis of variance is 4.02 which turned out to be significant. Hence, the hypothesis of no significant difference is rejected at 5% level of significance. The democratic -transformational leadership obtained an F-value of 2.96 which is significant at 5% level of confidence. Therefore, the null hypothesis in this case is rejected.

The finding indicates that the teachers who most of them are of the same age with the academic administrators are inclined to favor democratic leadership style or democratic-transformational leadership. It implies that the teachers in their senior years tend to see their academic administrators exhibits the democratic leadership style or democratic -transformational leadership style. Being consultative and easy to approach with, the senior teachers prefer this kind of leaders.

The findings of this study corroborate the study of Walter and Scheibe (2012), in reviewing available research on the relationship between age and leadership. They have identified that younger and older leaders appear to be equally effective. Age doesn't seem to impact a leader's willingness to step up, issue directives, and provide rewards for performance. In contrast, however, age does seem to affect a leader's openness to change. As leaders grow older, they become less willing to make changes and are less interested in innovation. Research also suggests that older leaders are more likely to take a passive approach to their leadership role—for example, delegating many duties and becoming actively involved only in crisis situations. They are also more likely to maintain the status quo rather than respond to new opportunities that arise. In some situations, maintaining rather than innovating would be a positive.





Table 4 Significant Differences on Means of Academic Administrators' Leadership Styles as Assessed by Teachers Grouped According to Age

Leadership Style		Mean	SD	Com	Sig	Decision Ho	Interpretation
A. Non-hybrid	Age			p. F-		110	
	61& over	4.54	0.83	test			
	51-60	4.42	0.62	0.20	0.00	A	Not
☐ Transactional	41-50 31-40	4.48 4.45	0.56	0.28	0.89	Accepted	Significant
	21-30	4.42	0.74				
	61& over	3.54	1.45				aa
	51-60	4.42	0.68	1			
□ Democratic	41-50	4.46	0.56	4.02	0.00	Rejected	Significant
	31-40	4.39	0.81				
	21-30	4.43	0.40				
	61& over	4.04	1.46				
	51-60	4.24	0.69				Not
☐ Autocratic	41-50	4.25	0.62	0.55	0.70	Accepted	Significant
	31-40	4.19	0.86				Sig
	21-30	4.23	0.71				
	61& over	4.13	1.10				
	51-60	4.45	0.55	-			Not Significant
Transformational	41-50	4.46	0.47	0.44	0.78	Accepted	
	31-40	4.44	0.61				
	21-30	4.44	0.46				
□ Laissez faire	61& over	3.83	1.44				
	51-60	3.99	0.70				
	41-50	4.07	0.65				Not
				0.28	0.89	Accepted	Significant
	31-40	3.95	0.80				Significant
	21-30	3.99	0.66				
B. Hybrid	21-30	3.99	0.00				
☐ Autocratic-	61& over	4.04	1.36				
transformational							Not Significan
transformationar	51-60	4.54	0.55	1.60	0.33	Accepted	Trot Biginifean
	41-50	4.62	0.41			1	
	31-40	4.46	0.75				
	21-30	4.54	0.38	0.54	0.50		
☐ Autocratic- transactional	61& over	4.00	1.60	0.54	0.70	Accepted	Not Significan
transactional	51-60	4.37	0.66			Accepted	Not Significan
	41-50	4.41	0.56				
	31-40	4.29	0.79				
	21-30	4.36	0.49				
☐ Democratic-	61& over	4.29	1.00				
transformational	51-60	4.35	0.62	2.96		Daisatad	Simificant
	41-50	4.43	0.56	2.96	0.02	Rejected	Significant
	31-40	4.37	0.62	1	0.02		
☐ Democratic-	21-30	4.36	0.57				
transactional	61& over	3.67	1.31				
	51-60	3.48	0.88	1.35		Accepted	Not Significan
	41-50	3.45	0.88	7	0.25	Accepted	g
	31-40	3.42	0.91		0.23		
-	21-30	3.42	0.91				
	21-30	3.40	0.55		l		



Table 5 presents the differences in the leadership style of academic administrators' grouped according to the education degree of the teacher-respondents.

The table shows the varying educational attainment from Bachelor's degree to Post graduate studies. It can be recalled that the respondents both teachers and academic administrators are masters' degree holders which is expected of them and some finished a their doctoral degree especially among academic administrators.

The table reveals that the leadership styles did not differ to each other when grouped according to the teachers' educational attainment, with their composite means close to each other. It only means that there is no significant difference in the leadership styles when respondents are grouped according to their educational attainment. The computed f-values did not warrant any significance based on the probability which are all greater than 0.05. The null hypothesis, therefore, is accepted at 5% level of significance.

This suggests that the educational attainment is not a differentiating factor of leadership styles. Considering that the styles are not mutually exclusive, and it cannot be discounted that some combination of both styles may enhance effective leadership and performance. Furthermore, academic leaders must keep on exploring opportunities and finding conditions that will facilitate the success of achieving the ultimate objectives of their institutions.

Table 5 Differences in the leadership style of academic administrators' leadership styles grouped according to the education degree of the teachers.

Leadership Style	Educ.	Mean	SD	Comp	Sig	Decision	Interpretation
A. Non-hybrid	Attainment			F-test		Ho	
	Post	4.37	0.55				
	Graduate						
 Transactional 	Doctoral	4.45	0.60	0.14	0.72	Accepted	Not Significant
	Masteral	4.45	0.62			-	
	Bachelor	4.21	0.78				
	Post	4.43	0.55				
	Graduate						Not Significant
Democratic	Doctoral	4.38	0.78	0.22	0.89	Accepted	
Democratic	Masteral	4.44	0.67	0.22	0.03		
	Bachelor	4.46	0.40				
	Post	4.30	0.71				
	Graduate						
 Autocratic 	Doctoral	4.13	0.82	1.17	0.32	Accepted	Not Significant
	Masteral	4.27	0.69]		•	
	Bachelor	4.29	0.63				
	Post	4.50	0.53				
	Graduate						
 Transformational 	Doctoral	4.40	0.58	0.02	0.99	Accepted	Not Significant
	Masteral	4.47	0.55	1			
	Bachelor	4.54	0.40	1			
	Post	4.07	0.41				
	Graduate						
Laissez faire	Doctoral	3.95	0.72	0.74	0.53	Accepted	Not Significant
Laissez faire	Masteral	4.02	0.73	0./4	0.53	Accepted	NOT SIGNIFICANT
	Bachelor	3.92	0.75	-			
B. Hybrid							
Autocratic-	Post	4.43	0.50				
	Graduate						Not Significant

: https://etcor.org : https://www.facebook.com/EmbracingTheCultureOfResearch : https://twitter.com/ETCOR_research : https://tinyurl.com/YouTubeETCOR : embracingthecultureofresearch@etcor.org : 0939-202-9035



IJOINED ETCOR เาอาเกยอ P - ISSN 2984-7567 E - ISSN 2945-3577

Sta. Ana, Pampanga, Philippines







Website: https://etcor.org



	transformational	Doctoral	4.48	0.63	1.48	0.22	Accepted	
Ī		Masteral	4.57	0.56				
		Bachelor	4.79	0.35	1			
•	Autocratic-	Post	4.33	0.38	0.36	0.79		
	transactional	Graduate					Accepted	Not Significant
		Doctoral	4.27	0.74				
Ī		Masteral	4.40	0.67				
		Bachelor	4.58	0.46				
	Domosustis	Doot	4 22	0.47		l		
•	Democratic-	Post	4.33	0.47		0.25		
	transformational	Graduate				0.25	Accepted	Not Cianificant
		Doctoral	4.38	0.58			Accepted	Not Significant
		Masteral	4.38	0.62	1			
		Bachelor	4.38	0.65	1.37			
•	Democratic-	Post	3.50	0.84				
	transactional	Graduate						
		Doctoral	3.43	0.91				
		Masteral	3.47	0.89	1.37	0.25	Accepted	Not Significant
		Bachelor	3.92	0.79				_

Table 6 presents the administrators' leadership style grouped according to length of teaching experience at the University. The table shows the range of teaching experience the teachers spent in their respective University. The lowest range is 3 to 5 years, and the highest teaching experience is 15 years and over. The table shows that in each leadership style, there seems no significant difference among the teachers when grouped according to their work experience as shown by the computed F-value which turned out to fall below the acceptable level of significance.

However, differences emerged as significant in three leadership styles; Democratic, Autocratictransformational, and Democratic-transformational. The teachers differed significantly in their assessments of the academic administrators' leadership style when grouped according to their work experience.

This would mean that teaching experience is not a differentiating factor in leadership styles except in democratic, autocratic -transformational and democratic- transformational. The three leadership styles; democratic, autocratic-transformational and democratic-transformational obtained an F-value of 2.59 (p=0.04), 2.74 (0.03) and 2.96 (p=0.02) respectively which are all significant at 95% level of confidence. It would be sufficient to say that the null hypotheses of no significant difference on these leadership styles were rejected at 5% level of significance.

Sta. Ana, Pampanga, Philippines







Table 6

Significant Differences on Means of Academic Administrators' Leadership Styles as Assessed by Teachers Grouped according to Teaching Experience

Website: https://etcor.org

	Teachers Grouped according to Teaching Experience									
	adership Style	Experien	Mean	SD	Comp. F-test	Sig	Decision Ho	Interpretation		
Α.	Non-hybrid	ce			1 -test		110			
		15&	4.43	0.63						
		over 12-14	4.41	0.60				Not		
	Transactional	9-11	4.48	0.58	0.21	0.93	Accepted	Significant		
		6-8	4.49	0.65				C		
		3.5	4.44	0.78						
		15& over	4.40	0.73						
1		12-14	4.53	0.48						
	Democratic	9-11	4.39	0.78	2.59	0.04	Rejected	Significant		
		6-8	4.54	0.44						
		3.5	3.85	0.94						
		15& over	4.20	0.72						
		12-14	4.30	0.64				Not		
	Autocratic	9-11	4.21	0.82	0.55	0.70	Accepted	Significant		
		6-8	4.40	0.67				Significant		
		3.5	4.37	0.77						
		15& over	4.39	0.57						
		12-14	4.56	0.44				Not		
	Transformational	9-11	4.44	0.60	1.10	0.36	Accepted	Significant		
		6-8	4.64	0.42				8		
		3.5	4.37	0.79						
		15& over	3.94	0.76						
		12-14	4.07	0.58	_					
	Laissez faire	9-11	4.02	0.77	0.77	0.54	Accepted	Not Significant		
		6-8	4.12	0.56				g		
		3.5	4.26	0.83						
В.	Hybrid									
	Autocratic-	15& over	4.54	0.58	4		Rejected	Significant		
	transformational	12-14	4.63	0.41	2.74	0.03	Rejected	Significant		
		9-11	4.49	0.70	1					
		6-8	4.54	0.39	-					
	A44: -	3.5	4.44	0.58	1.22	0.30				
	Autocratic- transactional	15& over 12-14	4.45	0.74	1.22	0.30	Accepted	Not		
	transactional	9-11	4.43	0.76	-			Significant		
		6-8	4.44	0.70	_					
		3.5	4.30	1.02						
П	Democratic-	15& over	4.33	0.67						
	transformational	12-14	4.43	0.49						
	ALLES CHIMITOTIAN	9-11	4.43	0.60	2.96	0.02	Rejected	Significant		
		6-8	4.35	0.55		0.02				
		3-5	4.56	0.65						
	Democratic-	15& over	3.45	0.90						
	transactional	12-14	3.50	0.84						
		9-11	3.50	0.94	0.75		Accepte	Not		
		6-8	3.27	0.83		0.5	d	Significant		
		3.5	3.81	0.97		6				



The Academic Administrators' Trait-Emotional Intelligence

Trait emotional intelligence in leadership is referred to as the ability to understand and manage one's emotions, as well as recognize and control others' emotions and perspectives. It must be clearly emphasized that trait-emotional intelligence concerns people's beliefs about their emotions. In a scale of 1-7, academic administrators were asked to rate themselves on the different factors in relation to the facets of trait-emotional intelligence. Thus, 4 and above is considered a high score and below 4 is considered low score.

Table 7 presents the trait-emotional intelligence of selected University academic administrators.

Table 7 Trait-emotional Intelligence of Selected University Academic Administrators

Trait Ciliotional I	Trait emotional Intelligence of Science Oniversity Academic Administrators										
Trait -emotional intelligence	Composite Mean	SD	Rank	Interpretation							
1. Well-being	5.98	0.87	1	High Score							
2. Self-control	5.07	0.83	5	High Score							
3. Emotionality	5.53	0.85	2	High Score							
4. Sociability	5.08	0.89	4	High Score							
5. Global traits	5.48	0.71	3	High Score							

Well-being as one of the facets of emotional trait include trait empathy, emotion perception and relationships. Compared with other facets, a composite score of 5.96 is considered a high score. It means that the administrators dominant trait- emotional intelligence are self-esteem, trait optimism and trait happiness. These educators are likely to be successful and self-confident. They look for the bright side of life and thus cheerful and satisfied.

A high score on this factor reflect a generalized sense of well-being, extending from past achievements to future expectations. Overall, the administrators feel positive, happy, and fulfilled compared with individuals who have low self-regard and disappointed about their life as it is at present.

The second highest score yielded is on the factor of Emotionality with a composite score of 5.70. This would mean that the respondent-educators are in touch with their own and other people's feelings. They can perceive and express emotions and use these qualities to develop and sustain close relationships with important others against those individuals who find it difficult to recognize their internal emotional states and to express their feelings to others, which may lead to less rewarding personal relationships. This factor includes trait empathy, emotion perception and relationships.

Sociability means that the educators emphasizes social relationships and social influence. They deal with others in social context rather than on personal relationship with family and close friends. These educators are better in social interaction. They are good listener and can communicate well. These educators exercise healthy degree of control, they cannot be intimidated by external pressure and stress. However, they are not expressive people.

The other two facets - self- control and global traits were also rated high by the administrators themselves. It only indicates that the academic administrators look at themselves with a stable and healthy trait-emotional intelligence. As such, these leaders with high emotional intelligence can use their ability to recognize and understand their own emotions to make more informed and rational decisions. They can also use their ability to empathize with the emotions of their team members to take into account their perspectives and needs when making decisions. This can lead to better decisions that are more aligned with the goals and values of the school they served.

Differences on Trait-Emotional Intelligence of Academic Administrators When Grouped According to **Their Profile**

Table 8 presents the significant differences of trait emotional intelligence of the academic administrators when grouped according to sex.

The table reveals that the academic administrators in four facets of emotional intelligence; well-being, selfcontrol, emotionality, and sociability differed significantly when they are grouped according to sex. Well-being obtained a t-value of -4.29 (p=0.00), Self-control, -3.17 (p=0.00), Emotionality, -2.24 (p=0.00), and Sociability, -4.56 (p=0.00).

iJOINED ETCOR เาด้างยอ P - ISSN 2984-7567 E - ISSN 2945-3577

P - ISSN 2984-7842 E - ISSN 1908-3181



Website: https://etcor.org

The significant differences mean that when it comes to trait-emotional intelligence, male and female administrators differed with each other. The female administrator showed a stronger emotions compared to their male counterparts as shown by their composite means. The computed t-value were all significant and the null hypotheses were rejected at 5% level of significance. In terms of global trait emotional intelligence, it is worth to recall that it consists of the four facets of well-

being, self-control, emotionality and sociability with two additional facets of adaptability and self-motivation. This trait global emotional intelligence obtained a t-value of -1.49 with p=0.07 which is above 0.05 significance level, hence considered as not significant. The non-significance of this particular facet would only mean that male and female academic administrators do not differ when it comes to adaptability and self-motivation. It would mean that sex is not a differentiating factor of adaptability and self-motivation. The null hypothesis of no significant difference is therefore accepted at 5% level of significance.

Table 8 Differences on trait-emotional intelligence of academic administrators when grouped according to sex

Differences off to	billerences on trait-emotional intelligence of academic administrators when grouped according to se								
Trait -emotional	Sex	Mean	Computed t-	Sig	Decision	Interpretation			
Intelligence			value		Но				
1 Wall being	Male	5.26	-4.29	0.00	Doject	Cianificant			
1. Well-being	Female	6.37	-4.29	0.00	Reject	Significant			
2. Self-control	Male	4.51	-3.17	0.00	Reject	Significant			
	Female	5.54	-3.17	0.00	Reject	Jigimicani			
3. Emotionality	Male	5.26	-2.24	0.02	Reject	Significant			
3. Emotionality	Female	5.96	-2.24	0.02	Reject	Significant			
4. Sociability	Male	4.32	-4.56	0.00	Reject	Significant			
4. Sociability	Female	5.57	-4.30	0.00	Reject	Significant			
5. Global traits	Male	5.24	-1.49	0.07	Accort	Not			
3. Giobai traits	Female	5.65	-1.49	0.07	Accept	Significant			

Table 9 presents the significant differences of trait emotional intelligence of the academic administrators when grouped according to age.

The academic administrators' trait composite means obtained across age range of Well-being in trait emotional intelligence differ at each other as shown by the significant computed F-values at 5.050 with p=0.008, which is less than the 0.05 level of significance. This means that the academic administrators differ with each other in terms of their well-being. The older the academic administrator, the higher their self-esteem, optimism and happiness. It could also mean that as the academic administrators become older, the more they become positive and self-confident. The null hypothesis of no significant difference on this aspect is therefore rejected at 5% level of significance.

The other trait emotional intelligence obtained a non-significant f - values thus the academic administrators perceived themselves the same in terms of self-control, emotionality, sociability and global traits. The null hypothesis of no significant differences are therefore accepted at 5% level of significance.



Table 9 Differences on trait-emotional intelligence of academic administrators when grouped according to Age

Trait -emotional Intelligence	Age	Mean	Computed F-value	Sig.	Decision on Ho	Interpretation
	51-60	6.56				
1 Well being	41-50	5.83	T 00	000	Doinet	Significant
1.Well-being	31-40	4.59	5.06	.008	Reject	
	21-30	0.00				
2. Self-control	51-60	5.56	_		Accept	
	41-50	5.12	1.36	0.280		Not Significant
	31-40	4.25	1.50	0.200		Not Significant
	21-30	4.50				
	51-60	5.88	_			
3. Emotionality	41-50	5.71	_	0.88	Accept	Not Significant
	31-40	5.52	0.23			Not Significant
	21-30	5.50				
	51-60	5.60				
4. Sociability	41-50	4.97	2.08		Accept	Not Significant
	31-40	4.00	2.00	0.13	Ассері	Not Significant
	21-30	5.50				
	51-60	5.64				
5. Global traits	41-50	5.47	_	0.72	Accept	Not Significant
	31-40	5.28	0.33			Not Significant
	21-30					

Table 10 reveals the significant differences of trait emotional intelligence of the academic administrators when grouped according to educational attainment.

The table shows almost the same composite means across the educational levels of the academic administrators in each of the trait emotional intelligence. It means that education is not a differentiating factor of trait emotional intelligence. Whatever level of education an individual achieves, his trait-emotional intelligence is not affected at all. Anybody can be happy, contented, confident or emotionally vibrant whatever you attained in your education.

A closer look at the table will show that the f-values did not register any significance in each of the emotional intelligence across educational attainment; Well-being (f=0.70, p=0.51), Self-control (f=1.60, p=0.22), Emotionality (f= 1.50, p=0.24), Sociability (f=1.50, p=0.24) and Global traits (f=0.27, p=0.84). The null hypotheses therefore are accepted at 5% level of significance. The academic administrators do not differ significantly in their trait-emotional intelligence when grouped according to their educational attainment.

It is suffice to say that the education background of the academic administrators do not necessarily affect their well-being, self-control, emotions, sociability including their global traits.



Table 10 Differences on trait-emotional intelligence of academic administrators when grouped according to Educational Attainment

Trait-emotional Intelligence	Education	Mean	Computed F-value	Sig	Decision on Ho	Interpretation
	Post-Grad	5.34				
1. Well-being	Doctoral	5.92	0.70	0.51	Accept	Not Significant
	Masteral	6.07				
	Post-Grad	5.58				
2. Self-control	Doctoral	4.79	1.60	0.22	Accept	Not Significant
	Masteral	5.40				
	Post-Grad	6.50				
3. Emotionality	Doctoral	5.81	1.50	0.24	Accept	Not Significant
	Masteral	5.50				
	Post-Grad	6.50				
4. Sociability	Doctoral	5.81	1.50	0.24	Accept	Not Significant
	Masteral	5.50				
	Post-Grad	5.59				
5. Global traits	Doctoral	5.35	0.27	0.84	Accept	Not Significant
	Masteral	5.60	7			

Table 11 shows the significant differences of trait emotional intelligence of the academic administrators when grouped according to administrative experience.

It can be gleaned from the table that the mean scores obtained in the four facets and in the global-trait factors are all above 5.0 which are indicative of a strong, trait-emotional intelligence. The table shows that the composite means obtained for each facet of emotional intelligence across the number of years working in the school or administrative experience of the academic administrator are almost the same to each other. The f-values with the probability for significance obtained are: Well-being (f=1.52, p=0.23), Self-control (f= 1.16, p=0.35), Emotionality (f=0.23, p=0.88), Sociability (f=0.42, p=0.74) and Global traits (f=0.35, p=0.79).

The table shows clearly that each facet of emotional intelligence did not register any significance across work or administrative experience. The probability obtained were all above 5% of the limit for significance, hence the null hypotheses of no significant differences are therefore accepted. It only shows that the length of experience does not affect the trait-emotional intelligence of an academic administrator.



E - ISSN 1908-3181

Table 11 Differences on trait-emotional intelligence of academic administrators when grouped

according to their Administrative Experience									
Trait-emotional	Experience	Mean	Computed	Sig	Decision	Interpretation			
Intelligence			F-value		on Ho				
	15 & over	6.61				Not			
1. Well-being	12 - 14	5.92	1.52	0.23	Accept	Significant			
1. Well-bellig	9-11	5.69				Significant			
	6-8	5.50							
2. Self-control	15 & over	5.58							
	12 - 14	4.97	1.16	0.35	Accept	Not			
	9-11	5.40	1.10	0.33		Significant			
	6-8	4.33							
	15 & over	5.88				Not Significant			
2 Emptionality	12 - 14	5.71	0.22	0.88	Accept				
3. Emotionality	9-11	5.52	0.23						
	6-8	5.50							
	15 & over	5.60							
4 Cociobility	12 - 14	4.97	0.42	0.74	Accort	Not			
4. Sociability	9-11	4.00	0.42	0.74	Accept	Significant			
	6-8	5.50]						
	15 & over	5.52							
E Clobal traits	12 - 14	5.53	0.25	0.70	Accont	Not			
5. Global traits	9-11	5.49	0.35	0.79	Accept	Significant			
	6-8	5.08]	1					

Relationship of Leadership Style of Academic Administrators and Their Trait - Emotional Intelligence

Table 12 presents the Coefficient of Correlations (Pearson r) of Academic Administrators' Trait Emotional Intelligence and Leadership styles.

The correlation coefficient indicates the relationship of two variables which range from -1 to +1. A correlation of -1.00 is just as strong as a correlation of 1.00. In social research, it generally used values of 0.10, 0.30, and 0.50 indicating weak, moderate, and strong relationships, respectively.

Table 14-A shows the coefficient of correlations between Well-being and Leadership Styles. The table reveals that there exists a significant relationships between the two variables. The table shows that Well-being is significantly and moderately correlated with transactional leadership (r=0.31), democratic leadership (r= 0.45), autocratic leadership, (0.12), transformational leadership (r=0.35). Likewise, it is also significantly and moderately correlated with hybrid leadership styles; autocratic transformational (0.38), democratic transformational (r=0.27), and democratic transactional (r=0.36).

Going further, the trait emotional intelligence of Self-control is also correlated with all leadership styles but the relationship is weak. Emotionality is also correlated, however, only democratic (r=0.30), transformational (r=0.35), autocratic-transformational (R=0.35), democratic-transformational (r= 0.37) and democratictransactional (r= 0.42) turned to correlate moderately.

A closer look at the table, the trait emotional intelligence of well-being is correlated with democratic leadership (r=0.452), transformational leadership (r=0.346), transactional (r=0.311), autocratic-transformational (r=0.378), and democratic transactional leadership (r=0.355). Emotionality is found to be correlated with democratic transactional leadership. (0.42), transformational (r=0.37) and autocratic- transformational (0.35).





Sociability shows a weak correlations with all leadership styles while the global traits is correlated moderately with all hybrid leaderships. styles.

It could be surmise that the trait-emotional intelligence is significantly correlated with leadership styles although it is only weak to moderate relationships. A closer look at the table will also reveal that the highest coefficient of correlations obtained is between Well-being and democratic leaderships with a coefficient of r= 0.45 and between Emotionality and democratic-transactional leadership with coefficient of r= 0.42. These coefficient correlations almost hit strong relationships.

Similar results were revealed in the study of Raquel Gómez-Leal et al (2021) that emotional intelligence is key for effective leadership and that the most commonly used skills/competences are self-awareness, selfmanagement and empathy. Additionally, the literature makes it clear that the extent to which the leader builds trusting relationships contributes greatly to the development of teacher satisfaction and performance.

Current research suggests that emotional intelligence continues to grow in importance and is a critical component of effective leadership. High emotional intelligence allows one to make more informed decisions and to solve problems more easily.

This study finds credence with the quantitative correlational study of Dianna Fanon (2018) who examined the relationship between emotional intelligence and leadership style of educational leaders Results suggested that individuals with high levels of emotional intelligence are most likely to use a transformational-leadership style and least likely to use a laissez faire leadership style.

Table 12 Coefficient of Correlations (Pearson r) of Academic Administrators' Trait Emotional **Intelligence and Leadership styles**

A Well-heing VS Leadership Styles

A. Well-bellig v3 Leadership Styles								
Leadership Styles	Coefficient r	Computed t- value	Sig	Decision on Ho	Interpretation			
A. Non-hybrid								
Transactional	0.311	2.41	0.00	Reject	Significant			
Democratic	0.452	8.35	0.00	Reject	Significant			
Autocratic	0.122	11.86	0.00	Reject	Significant			
Transformational	0.346	10.7	0.00	Reject	Significant			
Laissez-faire	0.241	0.6	0.00	Reject	Significant			
B. Hybrid								
Autocratic-	0.378	6.00	0.00	Reject	Significant			
transformational								
Autocratic-transactional	0.064	8.35	0.00	Reject	Significant			
Democratic-	0.273	6.39	0.00	Reject	Significant			
transformational								
Democratic-	0.355	10.7	0.00	Reject	Significant			
transactional								

B. Self-control

Leadership Styles	Coefficient r	Computed t- value	Sig	Decision on Ho	Interpretation
A. Non-hybrid					
Transactional	0.18	2.46	0.00	Reject	Significant
Democratic	0.19	7.25	0.00	Reject	Significant
Autocratic	0.14	10.05	0.00	Reject	Significant
Transformational	0.28	9.39	0.00	Reject	Significant
Laissez-faire	-0.11	-0.11	0.00	Reject	Significant
B. Hybrid					

365

ETCOR's Website Facebook Page Twitter Account YouTube Channel E-mail Address Mobile Number

: https://etcor.org : https://www.facebook.com/EmbracingTheCultureOfResearch : https://twitter.com/ETCOR_research : https://tinyurl.com/YouTubeETCOR : embracingthecultureofresearch@etcor.org : 0939-202-9035

Thank you for embracing the culture of research with us!



Educational Research Center PHILIPPINES

iJOINED ETCOR P - ISSN 2984-7567 E - ISSN 2945-3577

Sta. Ana, Pampanga, Philippines









Website: https://etcor.org

Autocratic-	0.28	4.39	0.00	Reject	Significant
transformational					
Autocratic-transactional	0.00	7.25	0.00	Reject	Significant
Democratic-	0.24	4.65	0.00	Reject	Significant
transformational					
Democratic-	0.21	9.39	0.00	Reject	Significant
transactional					
C Emotionality					

C. Emotionality					
Leadership Styles	Coefficient r	Computed t- value	Sig	Decision on Ho	Interpretation
A. Non-hybrid					
Transactional	0.01	3.12	0.00	Reject	Significant
Democratic	0.30	10.03	0.00	Reject	Significant
Autocratic	0.12	11.86	0.00	Reject	Significant
Transformational	0.35	15.0	0.00	Reject	Significant
Laissez-faire	0.13	3.0	0.00	Reject	Significant
B. Hybrid					
Autocratic- transformational	0.35	6.16	0.00	Reject	Significant
Autocratic- transactional	0.13	10.03	0.00	Reject	Significant
Democratic- transformational	0.37	4.48	0.00	Reject	Significant
Democratic- transactional	0.42	11.22	0.00	Reject	Significant

D. Sociability

Leadership Styles	Coefficient r	Computed t-	Sig	Decision on	Interpretation
		value		Но	
A. Non-hybrid					
Transactional	0.09	2.12	0.00	Reject	Significant
Democratic	0.11	6.62	0.00	Reject	Significant
Autocratic	0.10	13.3	0.00	Reject	Significant
Transformational	0.12	8.37	0.00	Reject	Significant
Laissez-faire	0.16	2.03	0.00	Reject	Significant
B. Hybrid					
Autocratic-	0.12	3.61	0.00	Reject	Significant
transformational					
Autocratic-transactional	0.14	6.62	0.00	Reject	Significant
Democratic-	0.14	4.46	0.00	Reject	Significant
transformational					
Democratic-	0.14	8.37	0.00	Reject	Significant
transactional					

E. Global Traits

	Leadership Styles	Coefficient r	Computed t- value	Sig	Decision on Ho	Interpretation
Α	. Non-hybrid					



iJOINED ETCOR เาด้างยอ

The Exigency RUN# E - ISSN 2984-7842







Website: https://etcor.org

				PRICEPORES	
Transactional	0.21	-2.43	0.00	Reject	Significant
Democratic	0.32	-8.09	0.00	Reject	Significant
Autocratic	0.17	-12.35	0.00	Reject	Significant
Transformational	0.00	-9.93	0.00	Reject	Significant
Laissez-faire	0.02	-1.56	0.00	Reject	Significant
B. Hybrid					
Autocratic-	0.34	-4.81	0.00	Reject	Significant
transformational					
Autocratic-transactional	0.33	-8.09	0.00	Reject	Significant
Democratic-	0.33	-4.92	0.00	Reject	Significant
transformational					
Democratic-	0.34	-9.92	0.00	Reject	Significant
transactional					

Conclusion

- 1. In terms of the profile of respondents according to sex, the respondent educators have almost equal number of representation although female educators outnumbered the male educators of about three faculty members, the difference is insignificant.
- 2. Most of the educators are in the mid to senior years, well-experienced, and mostly are teaching show a vibrant group with high level of trait-emotional intelligence
- 3. The preference of the hybrid- leadership styles only indicates that in reality leadership style cannot be confined to one kind of leadership but rather situational, depending on the condition of the environment.
- 4. The leadership style preference of transformational and democratic leadership or its hybrid is indicative of educators' characteristics of willingly taking steps to improve classroom practice or instruction.
- 5. Considering that age is a differentiating factor of trait-emotional intelligence in terms of Well-being, it can be concluded that the older the academic administrator, the higher their self-esteem, optimism, and happiness. It could also mean that as the academic administrators become older, the more they become positive and selfconfident.
- 6. The trait-emotional intelligence drives the academic administrators to be effective leaders considering all leadership styles are significantly correlated with their trait emotional intelligence.
- 7. It is not remote that leadership styles will evolve, and different names will replace the existing ones, but its relationship to emotional intelligence continue to exist which tends to become a a critical component of leadership. Emotional Intelligence is significant and relevant to current organizational climates and educational settings, hence emotional intelligence plays a vital role in ensuring leadership effectiveness.

Recommendations

- 1. Emotional intelligence has a positive relationship on leadership style as shown by significant correlations established in this study. Therefore, being emotionally stable and fit should be a criterion for appointment for academic administrator. Emotional intelligence should also be included as part of the selection and promotion process for leadership positions.
- 2. Considering the important role of emotional intelligence to affect leadership style among educational leaders, all faculty and academic staff should be trained and equipped with emotional intelligence skills
- 3. The Leadership and Emotional Intelligence Enhancement Framework for HEI's should be improved to suit the specific needs of a particular university.
- 4. The ability to connect emotionally with teachers and employees and lead with emotional intelligence is essential for leadership effectiveness, it is because how the leader makes his subordinates feel can impact his engagement, as well as his productivity.
- 5. Similar study must be conducted on this post-pandemic period to obtain a more reliable and to achieve better results when sampling requirements can be followed and the environment to conduct a research survey is more conducive.



6. Emotions can weave through every work situation an employee can experience, including change and uncertainty, interactions with colleagues, conflict and relationships, attitude, stress and burnout and achievement and failure.

REFERENCES

- Angel, Pandora (2018). Elusive Equity, Empathy, and Empowerment: One Woman's Journey through the Challenges of Gender Bias in the Early Twenty-First Century. Archway Publishing, USA.
- Aquino, Hanna Jane H., Orozco, Kerstine Jane & Marasigan, Portia R. (2021). Emotional Intelligence and Leadership Efficacy of University Student Leaders. International Review of Social Sciences Research, Vol.1, Issue 4, Dec. 2021.
- Ardebil, K. A., Sarvak, L.A., Eftekharzadeh, A.M., (2015). A framework for effective leadership practices and skills for school principals. International Journal of Advanced and Applied Sciences. Volume 2, Issue 10 (October) 2015, Pages: 13-20. http://www.science-gate.com/IJAAS.html
- Armony, J., Vuilleumier, P. (Eds.) (2017). The Cambridge Handbook of Human Affective Neuroscience. Cambridge University Press.
- Avolio, Bruce J., and William L. Gardner. 2005. Authentic leadership development: Getting to the root of positive forms of leadership. The Leadership Quarterly 16(3): 315-338.
- Balta, N. and Eryılmaz, A. (2019). The effect of the 'teacher-led PD for teachers' professional development program on students' achievement: an experimental study. An international journal of teachers' professional development Vol.23 2019 Issue-5 https://doi.org/10.1080/13664530.2019.1659176
- Bar-On, Reuven, Maree, J.G. and Elias, Maurice Jesse (2007). Educating People to Be Emotionally Intelligent. Heinemann Publishers, U.S.A.
- Bartolin, S., Karchman, R. L., & Gabrieli, C., (2018). Accounting for the Whole Child. Educational Leadership. February 2018, ASCD/www.ASCD.Org
- Benmira, S. & Agboola, M., 2021. Evolution of leadership theory. BMJ Leader, Vol. 5, pp. 3-5. http://dx.doi.org/10.1136/leader-2020-000296
- Berisha, F., Vula, E., Gisewhite, R., & McDuffie, H., (2023). The effectiveness and challenges implementing a formative assessment professional development program. Teacher Development. 28 May 2023. https://doi.org/10.1080/
- Beytekin, O.F., (2013). The Relationship Between Emotional Intelligence and Social Management. European Journal of Research on Education. Published by International Association of Social Science Research-IASSR, I (I), 1-5. ISSN:2147-6284.
- Bhatnagar, Nitin and Bhatnagar, Manta (2012). Effective Communication and Soft Skills. Peason Education, India.
- Blane, Hugh. (2017). 7 Principles of Transformational Leadership: Create a Mindset of





Passion, Innovation, and Growth, Red Wheel/Weiser, Ebook.

- Boekaerts, Monique, Pintrich, Paul and Zeidner, Moshe (2005). Handbook of Self-Regulation. Elsevier, U.S.A.
- Brown, D. Haider, T. and Sharma, M. (2016). Using Emotional Intelligence and Social Support to Predict Job Performance of Health Educators, Vol.47, No.5, 309-314. http://dx.doi.org/10.1080/19325037.2016.1203840
- Branscum, P., & Haider, T., (2016). Using Emotional Intelligence and Social Support to Predict Job Performance of Health Educators. American Journal of Health Education
- Burks., K., (2020) International School Leaders: Finding Success Through Distributed Leadership Practices. Kappa Delta Pi Record. 21 Apr. 2020. Vol.56 Unit 2, 52-54, DOI:10.1080/00228958.2020.1729625
- Camburn, E. M., & Pareja, A. S. (2007). Taking a distributed perspective to the school principal's workday. Leadership and Policy in Schools. (6)1, 103–125. https://doi.org/10.1080/15700760601091200
- Cash, Richard M. (2016). Self-Regulation in the Classroom: Helping Students Learn How to Learn. Golden Valley, America.
- Chamorro-Premuzic, Tomas (2015). Personality and Individual Differences. The British & Psychological Society and John Wiley Ltd., United Kingdom.
- Chatterjee, A. & Kulakli, A. (2015). An Empirical Investigation of the Relationship Between emotional Intelligence, Transactional and Transformational Leadership Styles in Banking Sector. Procedia – Social and Behavioural Sciences 210, 291-300.
- Chepng'eno, M., Ngui, T. (2017). Relationship between Emotional Intelligence and Leadership Styles: A Case Study of Leaders in Selected Banking Institutions in Kenya. International Journal of Research in Humanities and Social Studies. Catholic University of Eastern Africa, School of Business, Nairobi, Kenya Volume 4, Issue 2, February 2017, PP1 -12 ISSN 2394-6288 (Print) & ISSN 2394-6296 http://dx.doi.org/10.22259/ijrhss.0402001
- Cherry, K. (2018). Components of emotional intelligence. Very well Mind. Retrieved from https://www.verywellmind.com/components of emotional intelligence -2795438
- Cohrs, Carina, Bormann, Kai C., Diebig, Mathias, Millhoff, Catrin, Pachocki, Katharina, and Rowold, Jens. (2020). Transformational leadership and communication: Evaluation of a two-day leadership development program, Leadership & Organization Development Journal, Vol. 41 No.1, pp.101-117. https://doi.org/10.1108/LOD-02-2019-0097.
- Colman, Andrew (2008) A Dictionary of Psychology (3ed.) Oxford University Press. ISBN 9780199534067
- Cooper Carry and Quick, James Campbell (2017). The Handbook of Stress and Health:





A Guide to Research and Practice. John Wiley and Sons Ltd., UK.

- Cropley, Arthur (2023). Qualitative Research Methods: A Practice-Oriented Introductionhttps://www.researchgate.net/publication/285471178 Qualitative_Research_Methods_A_Practice-Oriented_Introduction (https://home.csulb.edu/~msaintg/ppa696/696guali.htm)
- Cure, L. (2014). Heart and Head: Lead with reason and emotion. Leadership Excellence, 31(1), 29-29.
- Davim, J. P, & Machado, C. (Eds.). (2019). Emotional Intelligence and Neuro-Linguistic Programming: New Insights for Managers and Engineers. CRC Press.
- DeSteno, David (2018). Emotional Success: The Power of Gratitude, Compassion and Pride. Houghton Mifflin Harcourt, Boston, New York.
- Druskat, Vaness Urch, Sala, Fabio, Mout, Geral (2006). Linking Emotional Intelligence and Performance at Work: Current Research Evidence with Individuals and Groups. Lawrenze Erlbaum Associations, Inc., U.S.A.
- Emmerling, Robert, Shanwal, Vinol, and Mandal, Manas (2008). Emotional Intelligence: Theoretical and Cultural Perspectives. Nova Science Publishers, Inc., New York.
- Eurich, Tasha (2017). Insight: The Surprising Truth About How Others See Us, How We See Ourselves and Why the Answers Matter More. Crown Publishing Group, U.S.A.
- Faltas, I. (2017). Three models of emotional intelligence. https://www.researchgate.net/publication/314213508_Three_Models_of_Emotional_Intelligence/download
- Freeman, G.T. & Fields, D., (2020). School leadership in an urban context: complicating notions of effective principal leadership, organizational, setting, and teacher commitment to students. International Journal of Leadership in Education. https://doi.org/10.1080/13603124.2020.1818133
- Gillet, J. (2010). The making of the preferred principal. South African Educational Leader, (7)2, 1-11.
- Goleman, Daniel, Boyatzis, Richard E., Mckee, Annie (2013). Primal Leadership: Unleashing the Power of Emotional Intelligence. Harvard Business Review Press.
- Goleman, Daniel, Leadership That Gets Results. (2017). Harvard Business Review
- Goleman, Daniel Theoretical Framework https://positivepsychology.com/emotional-intelligence-frameworks/
- Greene, Jeffrey A. (2017). Self-Regulation in Education. Routledge, New York.
- Gulbahar, B. (2017). Investigation of perceptions regarding teacher leadership among secondary school teachers in turkey. Journal of Education and Training Studies, 5 (2), 111–119. https://doi.org/10.11114/jets.v5i2.2040





- Hairon, S., & Dimmock, C., (2012). "Singapore schools and professional learning communities: teacher professional development and school leadership in an Asian hierarchical system" Educational Review Vol. 64, No. 4, Nov. 2012, pp.405-424. DOI:10.1080/00131911.2011.625111
- Hallenbeck, George (2017). Lead 4 Success: Learn the Essentials of True Leadership. Center for Creative Leadership, USA.
- Harms, P.D. & Credè (2010). Emotional Intelligence and Transformational and Transactional Leadership: A Meta-Analysis. Journal of Leadership & Organizational Studies, 17, 5-17.
- Harris, A., Day, C. & Hadfield, M., (2010). Teachers' Perspectives on Effective School Leadership. Teachers and Teaching: theory and practice. Alma Harris, Christopher Day, Mark Hadfield. Vol. 9. No.1. 25 Aug. 2010 pp. 67-77. ISSN 1354-0602 DOI: 10.1080/1354060032000049913
- Hebert, E.B. (2011). The Relationship between Emotional Intelligence, Transformational Leadership, and Effectiveness in School Principals. Dissertation, Georgia State University.
- Keefer, Kateryna, Parker, James, and Saklofske, Donald (2018). Emotional Intelligence in Education: Integrating Research with Practice. Springer International Publishing, Switzerland.
- Krznaric, Roman (2014). Empathy: Why It Matters, and How to Get it. Penguin Random House Company, U.S.A.
- Lopez-Zafra, E., Garcia-Retamero, R. & Martos, M. (2012). The relationship between transformational leadership and emotional intelligence from a gendered approach, The Psychological Record, 62, 97-114.
- Lucera, S.S., (2021). Emotional Intelligence, Resilience, and Coping Strategies of the Helping Professionals. Department of Humanities and Behavioral Sciences, Journal of Multidisciplinary Research and Publications ISSN: 25816187http://ijmrap.com/wp-content/uploads/2021/05/IJMRAP-V3N11P93Y21.pdf
- Lucero, Leilani C. & Jose M. Ocampo, Jr. (2019). Emotional Intelligence and Leadership Trait among Master Teachers. MIMBAR PENDIDIKAN: Journal Indonesia untuk Kajian Pendidikan, Volume 4(1), Maret, pp.55-72. Bandung, Indonesia: UPI [Indonesia University of Education] Press, ISSN 2527-3868.
- Mahfouz, J., (2018). Mindfulness Training for School Administrators: Effects on Wellbeing and Leadership. Journal of Educational Administration. https://doi.org/10.1108/JEA-12-2017-0171
- Matthews, Gerald, Zeidner, Mosche, Roberts, Richard (2012). Emotional Intelligence 101. Springer Publishing Company, New York.
- McEwan, E. (2008). Ten Habits of Highly Effective Schools: Raising the Achievement Bar for All Students. Corwin Sage Press, US.





- McEwan, E. K. (2009). Ten traits of highly effective schools: Raising the achievement bar for all students. Thousand Oaks: Corwin Press.
- McIntyre, Teresa Mendoncan, McInytre, Scott and Francis, David (2017), Educators Stress: An Occupational Health Perspective. Springer International Publishing, Switzerland.
- Moss, S., Ritossa, D. & Ngu, S. (2006). The effect of follower regulatory focus and extraversion on leadership behaviour: The role of emotional intelligence, Journal of individual Differences, 27, 93-107.
- Neale, Stephen, Spencer-Arnell, Lisa, and Wilson, Liz (2011). Emotional Intelligence Coaching Improving Performance for Leader, Coaches and the Individual. Koga Page, Great Britain and U.S.
- Newman, Amy. (2018) Building Leadership Character. SAGE Publications.
- O'Boyle, E. H., Humphrey, R. H., Pollack, J. M., Hawver, T. H., & Story, P. A. (2011). The relation between emotional intelligence and job performance: A metaanalysis. Journal of Organizational Behavior, 32, 788-818.
- Pablo, Berrocal et al. (2017) Teachers' Affective Well-being and Teaching Experience: The Protective Role of Perceived Emotional Intelligence. Published online: 2017 Dec 19;8:2227.doi:10.3389/fpsyg.2017.02227.eCollection .
- Petrides, K. V., Pita, R., & Kokkinaki, F. (2007). The location of trait emotional intelligence in personality factor space. British Journal of Psychology, 98, 273-289.
- Perry, James L., and Christensen, Robert K. (2015). Handbook of Public Administration. John Wiley & Sons, U.S.
- Riggio, Ronald and Tan, Sherylle (2014). Interpersonal and Influence Skills: The Soft Skills of Leadership. Routledge, New York.
- Riney, S.S. & Bullock, L.M., (2012). Teachers' Perspectives on Student Problematic Behavior and Social Skills. Emotional and Behavioural Difficulties, Vol.17. No.2, June 2012 195-211. DOI:10.1080/13632752.2012.675136
- Riopel, Leslie, (2019). "Emotional Intelligence Frameworks, Charts, Diagrams, & Graphs" https://positivepsychology.com/emotional-intelligence-frameworks/
- Ronald, J.C., & Cichy, S.H.K., (2009). The Contribution of Emotional Intelligence to Social Skills and Stress Management Skills Among Automated Food Service Industry Executives. Journal of Human Resources in Hospitality and Tourism. Vol.8:1, 15-31. Doi:10.1080/15332840802274411.
- Rosete, D. (2007). Does Emotional Intelligence Play an Important Role in Leadership Effectiveness? University of Wollongong Thesis Collections.
- Santamaría, Lorri J., and Andrés P. Santamaría. 2012. Applied critical leadership: Choosing change. New York, NY: Routledge.





- Seaward, Luke Brian (2017). Essentials of Managing Stress Fourth Ed. Jones and Bartlett Learning, USA.
- Sigh, Dalip (2015). Emotional Intelligence at Work: A Professional Guide. Fourth Ed. SAGE Publications, India.
- Soriano, Analiza G. (2007). Emotional Intelligence and Transformational Leadership of Student Leaders and Non-Leaders in Miriam College Faculty Research Journal, Volume 28 (1)
- Spillane, J. P., Camburn, E. M., & Pareja, A. S. (2007). Taking a distributed perspective to the school principal's workday. Leadership and Policy in Schools, (6)1, 103-125. doi: 10.1080/15700760601091200
- Spillane, J. P., & Zuberi, A. (2009). Designing and piloting a leadership daily practice log: Using logs to study the practice of leadership. Educational Administration Quarterly, (45)3, 375–423. doi: 10.1177/0013161X08329290
- Steward, J., (2014) (2014). Sustaining Emotional Resilience for School Leadership. School Leadership and Management . Vol. 34, No. 1, 52-68. http://dx.doi.org/10.1080/13632434.2013.849688
- Stowell, Steven J., and Mead, Stephanie S. (2016). The Art of Strategic Leadership: How Leaders at All Levels Prepare Themselves, their Theme and Organization for the Future. John Wiley & Son, Inc., Hoboken, New Jersey.
- Townsend, T., & Bayetto, A., (2020). Supporting school leaders to become more effective in leading reading improvements. School Effectiveness and School Improvement. 08 Dec 2020. https://doi.org/10.1080/09243453.2020.1858118
- Truxillo, Donald M., and Fraccaroli, Franco. (Eds.) (2015). Age in the Workplace: Challenges and Opportunities. Routledge, New York.
- Vann, B. A., Coleman, A. N., & Simpson, J. A. (2014). Development of the Vannsimpco Leadership Survey: A Delineation of Hybrid Leadership Styles. Swiss Business School Journal of Applied Business Research, 3, 28-38.
- Weisinger, Hendrie, and Pawliw-Fry, J.P. (2015). Performing Under Pressure: The Science of Doing Your Best When It Matters Most. Crown Business, New York.
- Yukl, G. (2010). Leadership in Organizations (7th Ed.). New York: Pearson
- Zaiontz, C. (2020) Real Statistics Using Excel. www.real-statistics.com