

Level of Grit Among Faculty Members in a Selected Higher Academic Institution

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Abstract

This quantitative correlational study investigated if there is a significant relationship between the demographic profile and the level of grit of faculty members from a selected higher academic institution (HAI). Survey questionnaires were distributed to 155 faculty-respondents through the College Deans and School Principal. The result of the study is consistent with the findings of Duckworth (2016) that grit was correlated to age which means that the more a person ages, the grittier he becomes. This study likewise confirms the work of Robertson-Kraft & Duckworth (2014) which reported that grittier individuals were more likely to stay long in the organization. It also supports the report of Robinson (2015) which stated the connection between grit and the respondents' demographic profile in terms of correlation and predictive function. A significant difference is also found between grit and the following variables: highest education attainment, faculty rank, average teaching performance, and college assignment. On the other hand, no significant difference existed between grit and gender, employment status, and civil status. Grit which is also reported in the study to determine faculty employment retention may be utilized by HAIs in reducing the faculty turnover ratio. Results of the study may also guide the Human Resource Department in the selection and hiring of the faculty members.

Keywords: grit, demographic profile, faculty employment turnover

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Introduction

In every academic institution, faculty turn-over is one of the major challenges to the administration and is often detrimental to the effective functioning of the organization. Iqbal (2010) defined organizational turn-over as the ratio of the number of organizational members who have left during the period being considered divided by the average number of people in that organization during period. With this concern, Eskreis-Winkler, Shulman, Beal, & Duckworth (2014) state that grit is a determining factor whether or not an individual will stay long in an organization. Furthermore, Suzuki, Tamesue, Asahi & Ishikawa (2015) state that grit is a contributing factor in work engagement; and Robinson (2015) cited that grit is an important factor in skills engagement, emotion engagement and class participation/interaction engagement of students.

Looking into the factors that promote faculty turnover and the ways to mitigate it then becomes a management imperative.

One factor that may be considered is the teacher's sense of purpose. Intrator & Kunzman (2006) believed that the professional development and teaching competence require an inversion of Maslow's pyramid which means that faculty development must begin with the soul of the institution. Teacher competence may be promoted through training programs on content, pedagogy, and learning outcomes. Evoking the inner life of our teachers, engaging them in activities that cultivate their capacity to teach with greater consciousness, and integrity are necessary condition for a successful professional development. Caution however must be taken so as not to misconstrue this 'inner life' approach to faculty development as a luxury secondary to such issues as pedagogical technique and curriculum development.

Another factor is the passion to teach. Day (2009) reported that teacher attrition and retention tend to focus on factors affecting teachers' decision to leave the teaching profession (OECD, 2005). Day further discussed that what must be required is a better understanding of the factors that enable teachers to sustain their motivation, commitment and passion towards effectiveness in the profession.

Furthermore, perseverance as another factor is not sufficient assurance for employees to perform well but through passion alignment, perseverance can predict job performance. Jachimowicz, Wihler, & Galinsky (2017) state that perseverance only propels employees forward when they experience passion alignment and employees who experienced passion alignment had lower intention to leave the organization.

In terms of correlational studies, Dobbins (2016) conducted a correlational analysis which shows that there is a statistically significant relationship between teacher grit and teacher efficacy. Furthermore, Argon and Kaya (2018) states that individuals with higher grit are more committed to their goals and are performing better than others with lower grit. Suzuki et.al. (2015), Robinson (2015) found correlation between demographic profile and their grit, however, Suzuki et.al. (2015) found no relation.

In the Philippines, faculty employment turn-over is also a serious problem particularly in the higher academic institutions. There have been studies internationally with

regard to the relationship between grit and work engagement as well as retention. In the local context, the researcher includes the difference of grit level according to the demographic profile.

In this study, the researcher hypothesized that there is a connection and significant relationship between the demographic profile and the grit level of the faculty members in terms of correlation and predictive function. With this, the researcher determines if the demographic profile of the faculty can predict the level of grit and that grit is a determining factor in the faculty employment retention.

The findings of this study can serve as a tool for the Human Resource Department and the administration in the selection, employment and creation of programs for faculty retention.

Conclusion

Findings

A total of 155 respondents were included in the study. Table 1 shows the distribution of subjects according to demographic profiles. Their age ranged from 22 to 64 years with a *Mean* age of 40.99 years. Most of the respondents had masters degree. Mostly were assistant professor and associate professor. Based on the average teaching performance of the faculty and teachers as evaluated by the students, 64 or 41.3% of the total respondents got very good rating. Majority were female in which 29.7% of the total respondents were faculty of College of Medicine. Majority were single and in regular employment status. Lastly, based on the teaching performance of the faculty as evaluated by the Dean or Principal, 67 or 43.2% of the total respondents got *very satisfactory* rating.

	Frequency (n=155)	Percentage
Age (in years)		
21 – 25	14	9.0
26 – 30	31	20.0
31 – 35	13	8.4
36 – 40	17	11.0
41 – 45	23	14.8
46 – 50	12	7.7
51 – 55	21	13.5
56 – 60	16	10.3
61 – 65	8	5.2
Mean ± SD = 40.99 ± 12.04		
Years		
<1	13	8.4
1 – 5	57	36.8
6 – 10	37	23.9
11 – 15	17	11.0
16 – 20	11	7.1
21 – 25	10	6.5
26 – 30	7	4.5

31 - 35	3	1.9
Mean \pm SD = 9.17 \pm 8.23		
Education		
Bachelor	50	32.3
Masters	68	43.9
Doctor of Medicine	26	16.8
Doctoral	11	7.1
Rank		
Teacher	40	25.8
Instructor	18	11.6
Assistant Professor	50	32.3
Associate Professor	47	30.3
Average Teaching		
Not Applicable	23	14.8
Good	15	9.7
Very Good	64	41.3
Excellent	53	34.2
Gender		
Male	65	41.9
Female	90	58.1
College		
Arts and Sciences	12	7.7
Basic Education	40	25.8
CBT	9	5.8
Dentistry	13	8.4
Medical Technology	11	7.1
Medicine	46	29.7
Nursing	9	5.8
Optometry	8	5.2
Pharmacy	3	1.9
PT	4	2.6
Status		
Single	81	52.3
Married	71	45.8
Others	3	1.9
Employment		
Regular	91	58.7
Non-regular	64	41.3
Teaching Performance		
Not Applicable	14	9.0
Satisfactory	18	11.6
Very Satisfactory	67	43.2
Excellent	56	36.1

Table 1. Demographic Profile of Respondents

Table 2 shows the distribution of subjects according to grit scores. The over-all grit scores ranged from 4.8 to 10 with a *Mean* of 7.97. The *Mean* grit score was rounded off to 8. The level of grit score was defined taking into consideration the Mean grit score. A respondent is considered having average grit level if the score is 8. A below average grit level was assigned to the respondents having a score of <8 and an

average grit was assigned to the respondents having a score of >8. Hence, from the 155 respondents, 70 (45.2%) had below average grit level while 53 (34.2%) had average grit level and 32 (20.6%) had above average grit level.

	Frequency (n=155)	Percentage
Grit Scores		
4	2	1.3
5	4	2.6
6	21	13.5
7	43	27.7
8	53	34.2
9	27	17.4
10	5	3.2
Mean \pm SD = 7.97 \pm 1.12		
Median = 8		
Level of Grit		
Below Average	70	45.2
Average	53	34.2
Above Average	32	20.6

Table 2. Level of Grit of Respondents

Table 3 shows the relationship of the different demographic profiles with the grit level of respondents. There was a significant difference in the age of respondents according to the level of grit as proven by the *p value* of <0.0001 derived from the *ANOVA*. Furthermore, it can be seen that the age increased with increasing grit level. The *Mean* age in years of respondents with below average, average, and above average grit levels were 35.64, 44.45 and 46.94, respectively.

A similar result was noted for years ($p < 0.0001$). The median years increased with an increasing level of grit. There was also a significant relationship between education and level of grit ($p = 0.002$).

The proportion of respondents with above average grit increased with increasing educational attainment from 12% for bachelors, 22.1% for those with masters education, 26.9% for doctor of medicine to 36.4% for those with doctoral degree. Rank was also found to be significantly related with level of grit ($p = 0.0004$) and average teach ($p = 0.01$).

Moreover, college, status and teaching were also significantly related to level of grit as shown by the *p values* <0.0001, 0.03, and 0.01 respectively. On the other hand, sex and employment were not significantly related to the level of grit as proven by the *p values* 0.06 and 0.42, respectively.

	Level of Grit			<i>p-value*</i>
	Below Average (n=70)	Average (n=53)	Above Average (n=32)	
Age (in years)				
Mean ± SD	35.64 ± 10.56	44.45 ± 11.91	46.94 ± 10.60	<0.0001 (S) [†]
Years				
Mean ± SD	5.97 ± 5.06	11.57 ± 9.75	12.22 ± 8.81	<0.0001
Median	5.00	9.00	11.50	(S) [‡]
Education				
Bachelor	32 (64.0%)	12 (24.0%)	6 (12.0%)	0.002 (S) [§]
Masters	32 (47.1%)	21 (30.9%)	15 (22.1%)	
Doctor of Medicine	5 (19.2%)	14 (53.8%)	7 (26.9%)	
Doctoral	1 (9.1%)	6 (54.5%)	4 (36.4%)	
Rank				
Teacher	28 (70.0%)	10 (25.0%)	2 (5.0%)	0.0004 (S) [§]
Instructor	11 (61.1%)	6 (33.3%)	1 (5.6%)	
Assistant Professor	19 (38.0%)	16 (32.0%)	15 (30.0%)	
Associate Professor	12 (25.5%)	21 (44.7%)	14 (29.8%)	
Average Teaching				
Not Applicable	15 (65.2%)	6 (26.1%)	2 (8.7%)	0.01 (S) [§]
Good	8 (53.3%)	4 (26.7%)	3 (20.0%)	
Very Good	33 (51.6%)	22 (34.4%)	9 (14.1%)	
Excellent	14 (26.4%)	21 (39.6%)	18 (34.0%)	
Gender				
Male	30 (46.2%)	27 (41.5%)	8 (12.3%)	0.06 (NS) [§]
Female	40 (44.4%)	26 (28.9%)	24 (26.7%)	
College				
Arts and Sciences	6 (50.0%)	4 (33.3%)	2 (16.7%)	<0.0001 (S) [§]
Basic Education	28 (70.0%)	10 (25.0%)	2 (5.0%)	
CBT	6 (66.7%)	1 (11.1%)	2 (22.2%)	
Dentistry	7 (53.8%)	5 (38.5%)	1 (7.7%)	
Medical	9 (81.8%)	2 (18.2%)	0	
Technology	9 (19.6%)	21 (45.7%)	16 (34.8%)	
Medicine	1 (11.1%)	4 (44.4%)	4 (44.4%)	
Nursing	2 (25.0%)	4 (50.0%)	2 (25.0%)	
Optometry	1 (33.3%)	0	2 (66.7%)	
Pharmacy PT	1 (25.0%)	2 (50.0%)	1 (25.0%)	
Status				
Single	41 (50.6%)	28 (34.6%)	12 (14.8%)	0.03 (S) [§]
Married	29 (40.8%)	22 (31.0%)	20 (28.2%)	
Others	0	3 (100%)	0	
Employment				
Regular	45 (49.5%)	28 (30.8%)	18 (19.8%)	0.42

Non-regular	25 (39.1%)	25 (39.1%)	14 (21.9%)	(NS) [§]
Teaching				
Not Applicable	6 (42.9%)	6 (42.9%)	2 (14.3%)	
Satisfactory	11 (61.1%)	4 (22.2%)	3 (16.7%)	0.01
Very Satisfactory	38 (56.7%)	21 (31.3%)	8 (11.9%)	(S) [§]
Excellent	15 (26.8%)	22 (39.3%)	19 (33.9%)	

* $p > 0.05$ - Not Significant (NS); $p \leq 0.05$ -Significant (S)

Data presented as Mean \pm SD, (medians) were computed as needed; or as frequency (%)

[†]ANOVA; [‡]Kruskal Wallis test; [§]Chi-square test

Table 3. Relationship of the Different Demographic Profile with the Level of Grit of Respondents

The study as shown in Table 4 revealed that there was a statistically significant difference between the level of grit and the following variables: highest education attainment, faculty rank, average teaching performance as evaluated by the students, college assignment, and teaching performance as evaluated by the Dean or Principal last semester.

On the other hand, the difference of grit level according to gender, employment status, and civil status was not significant.

	n	Level of Grit Mean \pm SD	p-value*
Age (in years)			
21 – 25	14	7.43 \pm 1.14	
26 – 30	31	7.30 \pm 1.14	
31 – 35	13	7.66 \pm 1.05	
36 – 40	17	8.06 \pm 1.17	
41 – 45	23	8.11 \pm 0.87	<0.0001 (S) [†]
46 – 50	12	8.55 \pm 1.11	
51 – 55	21	8.12 \pm 1.01	
56 – 60	16	8.50 \pm 0.89	
61 – 65	8	9.08 \pm 0.68	
Years			
<1	13	7.46 \pm 1.13	
1 – 5	57	7.72 \pm 1.12	
6 – 10	37	7.70 \pm 1.14	
11 – 15	17	8.37 \pm 0.93	<0.001 (S) [†]
16 – 20	11	8.91 \pm 0.64	
21 – 25	10	8.70 \pm 0.88	
26 – 30	7	8.71 \pm 0.89	
31 – 35	3	8.40 \pm 0.40	
Education			
Bachelor	50	7.54 \pm 1.12	
Masters	68	7.99 \pm 1.06	<0.001 (S) [†]
Doctor of Medicine	26	8.41 \pm 1.12	
	11	8.76 \pm 0.70	

Doctoral			
<i>Rank</i>			
Teacher	40	7.37 ± 1.02	<0.001 (S) [†]
Instructor	18	7.73 ± 0.77	
Assistant	50	8.10 ± 1.25	
Professor	47	8.44 ± 0.94	
Associate Professor			
<i>Ave. Teach</i>			
Not Applicable	23	7.26 ± 1.17	<0.0001 (S) [†]
Good	15	7.55 ± 1.40	
Very Good	64	7.86 ± 0.94	
Excellent	53	8.53 ± 0.98	
<i>Gender</i>			
Male	65	7.94 ± 1.02	0.78 (NS)
Female	90	7.99 ± 1.20	
<i>College</i>			
Arts and Sciences	12	7.73 ± 1.44	<0.0001 (S) [†]
Basic Education	40	7.37 ± 1.02	
CBT	9	7.71 ± 1.19	
Dentistry	13	7.70 ± 0.78	
Medical	11	7.49 ± 0.68	
Technology	46	8.51 ± 1.06	
Medicine	9	8.62 ± 1.00	
Nursing	8	8.34 ± 0.83	
Optometry	3	8.47 ± 0.92	
Pharmacy	4	8.65 ± 0.96	
PT			
<i>Status</i>			
Single	81	7.77 ± 1.16	0.09 (NS) [†]
Married	71	8.18 ± 1.08	
Others	3	8.33 ± 0.12	
<i>Employment</i>			
Regular	91	7.91 ± 1.12	0.39 (NS)
Non-regular	64	8.06 ± 1.14	
<i>Teaching</i>			
Not Applicable	14	7.77 ± 1.11	<0.001 (S) [†]
Satisfactory	18	7.49 ± 1.35	
Very Satisfactory	67	7.73 ± 1.02	
Excellent	56	8.46 ± 1.03	

* $p > 0.05$ - Not Significant (NS); $p \leq 0.05$ -Significant (S)

[†]ANOVA; ^{||}T- test

Table 4. Comparison of Grit Score According to the Different Demographic Profiles of Respondents

None of the variables listed in Table 5 was found to be a significant predictor of grit level ($p > 0.05$) by multiple regression analysis.

Variable	B	SE	p value
Age	0.012	0.013	0.35 (NS)
Years	0.016	0.014	0.27 (NS)
Education	0.112	0.123	0.36 (NS)
Rank	0.057	0.111	0.61 (NS)
Ave. Teach	0.293	0.238	0.22 (NS)
Gender (F)	0.083	0.185	0.66 (NS)
Status	0.008	0.203	0.97 (NS)
Employment	-0.215	0.188	0.25 (NS)
Teaching	0.082	0.223	0.72 (NS)

Table 5. Predictors of Level of Grit Score by Multiple Regression Analysis

Logistic regression was used for multivariate analysis of data. Table 6 shows that only gender was found to be a significant predictor of above average grit level ($p=0.03$). There was an almost three times higher chance for females to have an above average level of grit than males ($OR=2.88$; $95\% CI=1.06 - 7.77$; $p = 0.03$).

Variable	OR	95% CI	p value
Age	0.99	0.93 – 1.06	0.83 (NS)
Years	1.03	0.97 – 1.10	0.35 (NS)
Education	1.21	0.67 – 2.21	0.53 (NS)
Rank	1.58	0.86 – 2.91	0.14 (NS)
Ave. Teach	1.24	0.40 – 3.92	0.71 (NS)
Gender (F)	2.88	1.06 – 7.77	0.03 (S)
Status	1.83	0.65 – 5.18	0.25 (NS)
Employment	0.96	0.37 – 2.51	0.93 (NS)
Teaching	1.19	0.40 – 3.54	0.76 (NS)

Logistic Regression Analysis

Table 6. Predictors of Above Average Level of Grit by Logistic Regression Analysis

The study is consistent with the findings of Duckworth (2016) that grit was correlated to age. According to Duckworth (2016), the more a person has aged, the more that he/she to be grittier. Likewise, the result support the findings of Robertson-Kraft & Duckworth (2014) that grittier individuals were more likely to stay long in the organization.

The study supports the report of Robinson (2015) that there was a connection between the level of grit and the demographic profile of the respondents in terms of correlation. The study also showed only gender, specifically female, predicts above average grit level.

To further strengthen the research, the difference of grit level according to demograhicn profile was also included in the study. It was revealed that there was a statistically significant difference between the level of grit and the following variables: highest education attainment, faculty rank, average teaching performace as evaluated by the students, college assignment, and teaching performance as evaluated by the Dean or Principal last semester. On the other hand, the difference of grit level according to gender, employment status, cand civil status was not significant.

Implications of the Findings

Based on this study, it has been known that grit is a determining factor in the faculty employment retention. Also, the demographic profile of the faculty can predict the level of grit. For this reason, the management of a higher academic institution may utilize the result of the study in reducing the faculty turnover ratio.

The current study will also serve as a guide for Human Resource Department in the selection and hiring of the faculty members. As shown in the study, the University Human Resource Department must hire applicants with higher level of grit.

Limitations

The study in this research paper has a number of limitations. First, due to self-answered questionnaire, there is a possibility that the actual rating on teaching performance was not accurately reflected on the survey. Second, due to the correlational nature of the research, it cannot be concluded that grit was categorically related to the length of service. The passion to teach for example, as a reason of the faculty to stay in the University, is a factor that is inherent within the individual and not because of grit.

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