



Academic Procrastination Among Under Graduate Students Of Professional/ Non- Professional Courses In Relation To Usage Of Mobile Applications

Harpreet Kaur Assistant Prof., Batala College of Education, Batala.

Abstract:

This study investigates academic procrastination among under graduate students studying in professional/ non- professional courses in relation to usage of mobile applications (with high, average and low level). Random sampling was employed on the sample of 800 students. A significant difference in academic procrastination among undergraduate students studying in different professional/ non- professional courses was found with high, average and high and low usage of educational mobile application as well as with high, average and high and low usage of non-educational mobile applications; no significant difference in academic procrastination was found among the undergraduate students studying in professional/ non- professional courses using educational mobile applications; a significant interaction effect of Usage of Educational Mobile Applications/ Usage of Non-Educational Mobile Applications under graduate students studying in different courses was found on the scores of on academic procrastination. No significant difference in academic procrastination among undergraduate students studying in different professional/ non- professional courses was found with high, average and high and low usage of non-educational mobile applications; a significant difference in academic procrastination was found among the undergraduate students studying in professional/ non- professional courses using non-educational mobile applications; a significant interaction effect of usage of educational mobile applications/ usage of non-educational mobile applications under graduate students studying in different courses was found on the scores of on academic procrastination.

INTRODUCTION:

Procrastination is defined as 'voluntarily delay of an intended action despite knowing to be worse off for the delay' (Steel, 2007). Academic procrastination is a deliberate deferral of the initiation or completion of tasks required to finish an academic activity. (Schouwenburg, 2004). When delay is developed into a dispositional response to tasks that are perceived to be difficult, aversive, or lacking an immediate reward, procrastination can be viewed as a generalized personality trait (Steel and Ferrari, 2013; Sirois, 2014; Kroese and de Ridder, 2015; de Palo et al., 2017). Procrastination is a complicated problem found throughout society, particularly among the general public, and it manifests itself in both the academic

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and business worlds (Ferrari, Johnson & McCown; 1995). Procrastination is the result of putting off unpleasant chores because of a sense of powerlessness as well as the lack of control of a person. Schraw et al. (2007) states the academic delay as 'delay of work which must be completed intentionally.' Academic delays can be described as delaying academic tasks so that optimum performance becomes very unlikely and leads to psychological distress (Ferrari, Johnson, & McCown, 1995; Ellis & Knaus, 1977). Academic procrastination is a complex issue that plays an important part in student life. Meta-analysis studies on the issue showed that males have a higher tendency to procrastinate (Steel, 2007; Van Eerde, 2000).

Scholars put delay among students as; Day, Sullivan, & Mensink (2000), 50% of the students are problem-based and consistent; Onwuegbuzie (2004), 70% of students want to reduce their degree in academic activities; Ferrari, Ozer and Demir, (2009) 52% of students involved in delays; Klassen et al. (2010) 59% more than three hours a day delay. Many scholars believe that procrastination reflects a form of self-regulation failure (Ferrari, 2001; Sirois et al., 2003); lacking of the self-control (Sirois & Pychyl; 2013) and goal-management ability (Gustavson et al., 2014); Joseph and Varghese (2021) explored 20% to 40% of pupils are at high risk of developing Internet Addiction.

Kirschner and Karpinski (2010) explored that majority of Face Book users reported a negative impact, as it causes procrastination; problematic internet usage increases students' procrastination, Online activities (whatsapp) and academic preparation and distracts students from completing their assignments (Yeboah & Ewur, 2014; Janor, et.al., 2015). Yeboah & Ewur, (2014) explored that whatsapp is improving the effective flow of information and idea exchange among students, as Whatsapp and Facebook are used to make friends and converse, majority of respondents reported negative impacts such as bad language and spelling, late assignment submission, reduced study time, and poor academic achievement (Mingles & Adams; 2015). Yin (2016) revealed that students of both genders have good opinions regarding WhatsApp mobile learning; Okocha, Sani, and Paul (2017) puts technology as, that facilitates and enhances communication among families, friends, lecturers, and interactive learning. Lukas and Berking (2018) MT-PRO not only decreased overall procrastination, but it had improved academic procrastination; Qaisar et. al. (2017) revealed that the combined impacts of PMP usage and academic procrastination had not emerged as significant indicators of academic performance. Derakhsh et. al. (2018) revealed a substantial and positive relationship between the usage of social networks and academic procrastination. D'Souza et.al (2018) found Instagram addiction was more widespread among non-professional students; the length of membership in a social networking site influences academic procrastination (Efe & Efe; 2018); more students used social media, the more academic procrastination they had (Muslikah et.al; 2018). Sheikhlar and Sadeghpour (2019) found usage of social networks had an indirect relationship with academic

procrastination; smartphone addiction was associated with academic procrastination Li et.al. (2020).

Procrastination and non-educational apps are very much in use among students. Individuals who habitually procrastinate are more likely to indulge in immediate pleasure, meanwhile ignoring the pursuit of future goals (Sirois and Pychyl, 2013). Therefore, compared with tasks that are boring and (or) take effort, distractors characterized by immediate gratification are more attractive to procrastinators (Wang et al., 2019a). Mobile phones, in light of their powerful functions for entertainment and social contact, and their high accessibility can become an obsession for college students very easily.

OBJECTIVES:

1. To study the difference between under graduate students studying in professional courses and non-professional courses with different level of usage of educational mobile applications.
2. To study the difference in academic procrastination of under graduate studying in professional courses and non-professional courses using educational mobile applications.
3. To study the interaction effect of usage of educational mobile applications and nature of course of under graduate students studying on the scores of academic procrastination.
4. To study the difference between under graduate students studying in professional courses and non-professional courses with different level of usage of non-educational mobile applications.
5. To study the difference in academic procrastination of under graduate studying in professional courses and non-professional courses using non-educational mobile applications.
6. To study the interaction effect of usage of non-educational mobile applications and nature of course of under graduate students studying on the scores of academic procrastination.

SAMPLE OF THE STUDY:

Random sampling was employed on the sample of 800 students of 1st, 2nd, or 3rd year of graduation classes of Professional and Non-Professional courses with high, average and low usage of mobile applications, studying in GNDU and its affiliated college of Amritsar District.

TOOLS USED:

1. Scale on Mobile App Usage (Constructed by the investigator).
2. Academic Procrastination (Marks obtained in the previous class).

1. 3X2 factorial Analysis of Variance of Usage of Educational Mobile Application in relation to Nature of Course of Undergraduate Students on Academic Procrastination
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The mean and S.D. of usages of educational mobile applications of undergraduate Students studying in different courses, F-value has been calculated and presented in the Table 1:

Table 1: Mean scores on Academic Procrastination of Undergraduate Students studying in different courses of Usage of Educational Mobile Applications

| Usage of Educational Mobile Application level | Nature of Course | Mean | S. D. | N |
|--|---------------------------|-------|-------|-----|
| Usage of High Non-Educational Mobile Applications | Professional Courses | 71.47 | 13.04 | 137 |
| | Non- Professional Courses | 72.58 | 11.45 | 79 |
| | Total | 71.88 | 12.47 | 216 |
| Usage of Average Non-Educational Mobile Applications | Professional Courses | 72.55 | 11.04 | 201 |
| | Non- Professional Courses | 70.93 | 8.50 | 167 |
| | Total | 68.85 | 10.12 | 368 |
| Usage of Low Non-Educational Mobile Applications | Professional Courses | 69.98 | 9.22 | 108 |
| | Non- Professional Courses | 72.40 | 9.73 | 108 |
| | Total | 72.90 | 9.49 | 216 |

Table 2: Summary of One-way ANOVA of Under-Graduate Students studying in different courses of Usage of Educational Mobile Application on Academic Procrastination

| Sources of Variation | Sum of Square | df | Mean Sum of Square | F-Ratio |
|---------------------------------------|---------------|-----|--------------------|----------------|
| Non-Educational Mobile Apps Usage (A) | 2811.68 | 2 | 1405.84 | 12.55** |
| Educational Stream (B) | 194.88 | 1 | 194.88 | 1.74 |
| Interaction (AXB) | 959.00 | 2 | 479.50 | 4.28** |
| Error Term | 86835.96 | 794 | 109.37 | |

*Significant at 0.05 level, **Significant at 0.01 level

Analysis of Variance on the scores of usage of Educational Mobile Application in relation to Nature of Course of Undergraduate Students on Academic Procrastination
Main Effect

A) Usage of Educational Mobile Application

It may be observed from the table 2 that the F-ratio (12.55) for difference between the mean scores of academic procrastination of undergraduate students studying in different (Professional and Non-Professional) courses with high, average and low groups of educational mobile apps usage of was found to be significant at 0.01 level of confidence. This indicates that different level of usages of educational mobile applications (high, average and low) doe affect undergraduate students studying in different (Professional and Non-Professional) courses.

In order to probe deeper, F-ratio was followed by t-test. The value of t-ratio for difference in mean scores of academic procrastination of high, average and low groups of Undergraduate students with different levels of usages of educational mobile applications Usage has been placed in table 3.

Table 3: t-ratio for Academic Procrastination of Undergraduate students studying in different type of courses with different levels of usage of Educational Mobile Applications

| Variable | Usage of High Mobile Applications | | Usage of Average Mobile Applications | | Usage of Low Mobile Applications | |
|--------------------------------------|-----------------------------------|----------------|--------------------------------------|----------------|----------------------------------|---------------|
| | N | Mean SD | N | Mean SD | N | Mean SD |
| | 216 | 71.88 12.47 | 368 | 76.07 10.12 | 216 | 76.56 9.49 |
| Usage of High Mobile Applications | - | | 4.43** | | 4.39** | |
| Usage of Average Mobile Applications | 4.43** | | - | | 0.57 | |
| Usage of Low Mobile Applications | 4.39** | | 0.57 | | - | |

Table 4 shows the mean scores for academic procrastination of undergraduate students studying in different (Professional and Non-Professional) courses with high and average

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groups of usages of educational mobile applications. The t-value (4.43), testing the significance of mean difference on academic procrastination of undergraduate students with high and average level of usages of educational mobile applications and t-value (4.39), testing the significance of mean difference on academic procrastination of undergraduate students with high and low level of usages of educational mobile applications, in comparison to table value was found to be significant at 0.01 level of confidence; while t-value (0.57), testing the significance of mean difference on academic procrastination of Undergraduate students studying in different Professional and Non-Professional courses with high and average level of usages of educational mobile applications, in comparison to table value was not found to be significant at 0.05 level of confidence. Hence the Hypothesis “There exists no significant difference between under graduate students studying in professional courses and non-professional courses with different level of usage of educational mobile applications”, stands partially rejected. So, it may be inferred that there exists significant difference in academic procrastination of undergraduate students studying in different Professional and Non-Professional courses with high and average level of usages of educational mobile applications; while there exists significant difference in academic procrastination of Undergraduate students studying in different Professional and Non-Professional courses with average and low level usages of educational mobile applications.

B) Educational Stream

It may be observed from the table 3 that the F-ratio (1.74) for difference between the mean scores on the scores of academic procrastination of Undergraduate students studying in different Professional and Non-Professional courses was not found to be significant at 0.05 level of confidence. Hence the Hypothesis “There exists no significant difference in academic procrastination of under graduate studying in professional courses and non-professional courses using educational mobile applications” is not rejected. This indicates that nature of course of undergraduate students’ do not effect on the scores of academic procrastination.

First Order Interaction effect

It may be observed from the table 3 that the F-ratio (4.28) for interaction between usages of educational mobile applications (high, average and low) and Nature of Course of undergraduate students studying in different Professional and Non-Professional in comparison to table value was found significant; as the difference between the mean scores of high, average and low groups of usages of non-educational mobile applications usage of Undergraduate students on academic procrastination was found to be significant at 0.01 level of confidence. This indicates that different levels of usages of non-educational mobile applications (high, average and low) and Nature of Course of Undergraduate students studying in different Professional and Non-Professional courses do affect undergraduate students on their scores of academic procrastination.

Hence the Hypothesis, ‘There exists be no significant interaction effect of usages of educational mobile applications of undergraduate students studying in professional and non-professional courses on the scores of Academic Procrastination’, stands rejected. It may be concluded that there was significant difference in the mean scores on academic procrastination of under-graduate students due to interaction effect of usages of educational mobile applications and Nature of Course.

2. ANALYSIS OF VARIANCE ON ACADEMIC PROCRASTINATION WITH USAGE OF NON-EDUCATIONAL MOBILE APPLICATIONS

3X2 factorial Analysis of Variance of Usage of Non-Educational Mobile Application in relation to Nature of Course of Undergraduate Students on Academic Procrastination

The mean and S.D. of usages of non-educational mobile applications of Undergraduate Students studying in different courses, F-value has been calculated and presented in the Table 5 below:

Table 5: Mean scores on Academic Procrastination of Undergraduate Students studying in different courses with Usage of Non-Educational Mobile Applications

| Usage of Educational Mobile Applications level | Nature of Course | Mean | S. D. | N |
|--|---------------------------|-------|--------|-----|
| Usage of High Non-Educational Mobile Applications | Professional Courses | 73.90 | 12.122 | 137 |
| | Non- Professional Courses | 79.34 | 8.474 | 79 |
| | Total | 76.22 | 11.032 | 216 |
| Usage of Average Non-Educational Mobile Applications | Professional Courses | 74.13 | 11.618 | 201 |
| | Non- Professional Courses | 75.78 | 8.923 | 167 |
| | Total | 74.88 | 10.500 | 368 |
| Usage of Low Non-Educational Mobile Applications | Professional Courses | 74.73 | 10.655 | 108 |
| | Non- Professional Courses | 73.63 | 11.607 | 108 |
| | Total | 74.25 | 11.071 | 216 |

Table 6: Summary of One-way ANOVA of under-Graduate Students studying in different courses of Usage of Non-Educational Mobile Applications on Academic Procrastination

| Sources of Variation | Sum of Square | df | Mean Sum of Square | F-Ratio |
|----------------------|---------------|----|--------------------|---------|
|----------------------|---------------|----|--------------------|---------|

| | | | | |
|--|----------|-----|---------|--------------|
| Usage of Non-Educational Mobile Applications (A) | 2811.68 | 2 | 1405.84 | 2.92 |
| Different courses (B) | 194.88 | 1 | 194.88 | 6.41* |
| Interaction (AXB) | 959.00 | 2 | 479.50 | 4.98* |
| Error Term | 86835.96 | 794 | 109.37 | |

*Significant at 0.05 level, **Significant at 0.01 level

Analysis of Variance on the scores of Usage of Educational Mobile Applications in relation to Nature of Course of undergraduate Students on Academic Procrastination Main Effect

A) Usage of Educational Mobile Applications

It may be observed from the table 5 that the F-ratio (2.92) for difference between the mean scores of academic procrastination of undergraduate students studying in different (Professional and Non-Professional) courses with high, average and low groups of usage of educational mobile applications of was not found to be significant at 0.05 level of confidence. Hence the Hypothesis “There exists no significant difference between under graduate students studying in professional courses and non-professional courses with different level of usage of non-educational mobile applications”, stands rejected. Hence the Hypothesis “There exists no significant difference between under graduate students studying in professional courses and non-professional courses with different level of usage of educational mobile applications”, stands rejected. This indicates that different levels of usages of educational mobile applications (high, average and low) do not effect Undergraduate students studying in different (Professional and Non-Professional) courses on the scores of academic procrastination.

B) Nature of Course

It may be observed from the table 5 that the F-ratio (6.41) for difference between the mean scores on the scores of academic procrastination of undergraduate students studying in different Professional and Non-Professional courses was found to be significant at 0.05 level of confidence. This indicates that nature of course of undergraduate students does affect the scores of academic procrastination.

Table 7: t-ratio for Academic Procrastination of undergraduate students studying in different type of courses

| Stream | Mean | S.D. | N | t-value |
|--------------------------|-------------|-------------|----------|----------------|
| Professional courses | 74.23 | 11.49 | 446 | 2.47* |
| Non-professional courses | 76.13 | 9.81 | 354 | |

It may be observed from the table 7 that mean scores for academic procrastination of undergraduate students studying in different Professional and Non-Professional courses of study. The t-value (2.47), testing the significance of mean difference on academic procrastination of Undergraduate students in comparison to table value was found to be significant at 0.05 level. Hence the Hypothesis “There exists no significant difference in academic procrastination of under graduate studying in professional courses and non-professional courses using non-educational mobile applications” stands rejected. This indicates that the undergraduate students studying in Non-professional nature course scored more on academic procrastination than the undergraduate students of professional courses.

First Order Interaction effect

It may be observed from the table 6 that the F-ratio (4.98) for interaction between usages of non-educational mobile applications (high, average and low) and studying in different Professional and Non-professional courses in comparison to table value was found to be significant; as the difference between the mean scores of high, average and low groups of usages of non-educational mobile applications of undergraduate students on academic procrastination was found to be significant at 0.01 level of confidence. This indicates that different levels of usages of educational mobile applications (high, average and low) and nature of course Professional and Non-professional courses do affect the Undergraduate students on their scores of Academic Procrastination.

Hence the Hypothesis, ‘There exists be no significant interaction effect of usages of educational mobile applications of undergraduate students studying in professional and non-professional courses on the scores of Academic Procrastination’, stands rejected. It may be concluded that there was significant difference in the mean scores on academic procrastination of under-graduate students due to interaction effect of usage of educational mobile applications and Nature of Course.

Findings:

1. A significant difference in academic procrastination among undergraduate students studying in different professional and non-professional courses was found with high and average as well as with high and low usage of educational mobile application; while no difference in academic procrastination was found among undergraduate students with average and low levels of usage of educational mobile application.
2. No significant difference in academic procrastination was found among the undergraduate students studying in different professional and non-professional courses students.

3. A significant difference in the academic procrastination of under-graduate students due to interaction effect of usage of educational mobile application and different professional and non-professional courses students was observed.
4. No significant difference in academic procrastination among undergraduate students studying in different professional and non-professional courses was found with high, average and low usage of non-educational mobile application.
5. A significant difference in academic procrastination was found among the undergraduate students studying in different professional and non-professional courses students. Students studying in professional course were less prone to academic procrastination than the students studying in non-professional courses.
6. A significant difference in the mean scores on academic procrastination of under-graduate students due to interaction effect of usage of educational mobile application and different professional and non-professional courses students was observed.

Educational Implications:

Procrastination is positively related to college students' mobile phone addiction, so there is need to to guide college students to reduce procrastination behavior and then overcome procrastination habits. On one hand, teachers and counsellors should help students realize that procrastination can have a negative influence on their mental health and increase the potential possibility of problematic behavior. On the other, intervention strategies should aim at reducing procrastination such as making plans and the "implementation intentions" method can be applied to trait procrastinators.

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