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Correlates of profile characteristics with career preferences among polytechnic students of ANGRAU

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Abstract
The study intends to find out the correlation between profile characteristics and career preferences of polytechnic students. A sample of 240 students were selected from three polytechnics *viz.*, Agriculture, Seed technology and Organic farming using simple random sampling procedure. The study was conducted during the year from 2019-2022 in both constituent and affiliated colleges of ANGRAU. The multiple linear regression equation with seventeen selected profile characteristics put together contributed 70.60 percent to the total variance in the attitude of polytechnic students towards diploma programme, the remaining 29.40 percent may be due to the extraneous, and un identified profile characteristics effect.

Keywords: Polytechnic students, attitude, significant

Introduction
India has always been an agricultural-based country, where the agricultural education and research had a great significance in the sustainable growth and development of human resources for the agricultural sector. Diploma courses in agriculture are the set of specialized courses that are offered under the agriculture stream. Diploma courses are designed to help candidates understand the technologies and methods for better farming and agriculture processes. Further, it would be worthwhile to study the different characteristics of polytechnic students and their association with attitude so that it can be known which of the characteristics play an important role in forming positive attitude towards diploma programme. The attitude of polytechnic students with relation to the selected profile characteristics is the main objective taken under this study.

Materials and Methods
An *Ex*-post facto research design was followed for the study. 24 polytechnics were selected for the study by purposive sampling. Ten students were selected from each polytechnic by using simple random sampling procedure thus making a total of 240 students. The independent variables undertaken in this study are Gender, Academic achievement, Medium of instruction in X^{th} class, Education of parents, Size of land holding, Annual income of parent, Type of family, Caste, Family occupation, Rural urban background, Participation in extracurricular & co-curricular activities, Library exposure, Mass media exposure, Infrastructure facilities, Achievement motivation and Self-confidence were studied. The dependent variable chosen for the purpose of the study was attitude. The statistical tools were used to analyze the relationship is coefficient of correlation.

Results and Discussion
An attempt has been made to find out if there exists any relationship of the profile characteristics of polytechnic students *viz.*, Gender, Academic achievement, Medium of instruction in X^{th} class, Education status, Size of land holding, Annual income of parent, Type of family, Caste, Family occupation, Rural urban background, Participation in extracurricular & co-curricular activities, Library exposure, Mass media exposure, Infrastructure facilities, Achievement motivation, Self-confidence with the attitude towards diploma programme.

Null hypothesis
There is no significant relationship of profile characteristics of polytechnic students with attitude towards Diploma programme.

Empirical hypothesis
There will be a significant relationship of profile characteristics of polytechnic students with attitude towards Diploma programme.

Table 1: Correlation coefficient of profile characteristics of polytechnic students with Attitude

(n=240)

S. No.	Independent variables	'r' value
1	Gender	0.046NS
2	Academic achievement	0.180**
3	Medium of Instruction in Xth class	0.076NS
4	Education of father	0.326**
5	Education of mother	0.329**
6	Size of land holding	0.280**
7	Annual income of parent	0.003NS
8	Type of family	0.117NS
9	Caste	0.204**
10	Family occupation	0.231**
11	Rural urban background	0.029NS
12	Participation in extracurricular & co-curricular activities	0.307**
13	Library exposure	0.057NS
14	Mass media exposure	0.441**
15	Infrastructure facilities	-0.054NS
16	Achievement motivation	0.749**
17	Self-confidence	0.407**

** Significant at The 0.01% Level. NS- Non Significant
* Significant at The 0.05% Level.

1. Gender versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.046) was found positive and non-significant between gender and attitude of polytechnic students. The present finding of the study was in agreement with to the findings of Patel et al. (2013) [7], Rekha Rani (2016) [9].

2. Academic achievement versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.180**) was found positive and significant between academic achievement and attitude of polytechnic students. The main reason behind that may be due to fact that only those who are positively inclined towards education, could put in more efforts and take an interest in their course work, thus leading them to have a good academic performance. The present finding of the study was supplementary to the findings of Aher (2010) [1].

3. Medium of Instruction versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.076) was found positive and non-significant between medium of instruction and attitude of polytechnic students. Non-significant relationship between medium of instruction and attitude indicated that medium of instruction did not play any role in developing favourable attitude of the students. The present finding of the study was complimentary to the findings of Kavitha (2018) [4].

4. Education of father versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.326**) was found positive and significant between education of parents and attitude of polytechnic students. Definitely, father's educational level could motivate the children to have an interest and positive attitude towards higher studies. Most of the children wanted to acquire more educational qualification than their father due to the constant encouragement and guidance from their father. The present finding of the study was in further proof of the findings of Krishna (2017) [5].

5. Education of mother versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.329**) was found positive and significant between education of parents and attitude of polytechnic students. This may be due to the fact that highly educated, qualified parents' guide their children to take risk and opt for better careers with more earnings. The present finding of the study was complementary to the findings of Krishna (2017) [5].

6. Size of land holding versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.280**) was found positive and significant between size of land holding and attitude of polytechnic students. When the land holding of the family is big, the family members would be more interested towards farming and farm related aspects and some of them must be involved fully in farming. Thus, the children also would develop a favourable attitude towards farming and agricultural education, because through practical experience they must be knowing the importance of agricultural education in farming and many of them would opt it for higher studies for the better management of their farm and Agripreneurship. If the farm holding is very less naturally the children would have very less contact with farming and their affinity towards farming, farm related aspects and agricultural education would be low. The present finding of the study was in agreement with to the findings of Uprikar (2008) [10].

7. Annual income of parent versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.003) was found positive and non-significant between annual income and attitude of polytechnic students. The average family income was good which indicates that most families belonged to well to do section of the society. Thus the parents could provide complete facilities for their children leading to aspire to be well educated. But non-significant association was due to medium level of annual income of parents. The present

finding of the study was in further proof of the findings of Gadhvi (2012) [3].

8. Type of family versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.117) was found positive and non-significant between type of family and attitude of polytechnic students. This might be because of better scope, exposure and intense guidance available to children in the nuclear families. But however relationship being non significant indicates that various other factors also influence the attitude. The present finding of the study was complementary to the findings of Krishna *et al.* (2017) [5].

9. Caste versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.204**) was found positive and significant between caste and attitude of polytechnic students. This might be due to reason that in order to gain prestige and power in the society different categories of respondents aspire different careers and develop positive attitude accordingly. The present finding of the study was in agreement with to the findings of Priyanka & Meena (2014) [14].

10. Family occupation versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.231**) was found positive and significant between family occupation and attitude of polytechnic students. This might be due to the reason that children of well-settled parents try to emulate their parents. Obviously if mother is working it will inculcate professionalism among the children as the influence of mother is more compared to father and would have developed positive attitude. The present finding of the study was in further proof of the findings of Muralikrishnan & Philip (2018) [15].

11. Rural urban background versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.029) was found positive and non-significant between rural urban background and attitude of polytechnic students. Non-significant relationship between rural urban background and attitude indicated that background did not play any role in developing favourable attitude of the students. The present finding of the study was complementary to the findings of Kaushi Kumar (2013) [13], Rekha Rani (2016) [9].

12. Participation in extracurricular & co-curricular activities versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.307**) was found positive and significant between participation in extra circular & co-circular activities and attitude of polytechnic students. Increased participation in activities means increase in communication skills and enthusiasm to disseminate acquired skills and knowledge. The present finding of the study was in agreement with to the findings of Aher (2010) [1].

13. Library exposure versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.057) was found positive and non-significant between library exposure and attitude of polytechnic students. The present finding of the study was in further proof of the findings of Christian (2010) [2] and Kavitha (2018) [4].

14. Mass media exposure versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.441**) was found positive and significant between mass media exposure and attitude of polytechnic students. Higher mass media exposure makes the students more aware of the diversified and innovativeness. This might have influenced them to develop favourable attitude. The present finding of the study was complementary to the findings of Patel *et al.* (2020) [12].

15. Infrastructure facilities versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (-0.054) was found negative and non-significant between infrastructure facilities and attitude of polytechnic students.

16. Achievement motivation versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.749**) was found positive and significant between achievement motivation and attitude of polytechnic students. It is obvious factor that achievement is only possible when we develop favourable attitude towards the work we are doing. The present finding of the study was in agreement with to the findings of Aher (2010) [1] and Gadhvi (2012) [3].

17. Self-confidence versus Attitude
From the Table 1 it is evident that computed correlation coefficient value (0.407**) was found positive and significant between self-confidence and attitude of polytechnic students. It is natural that the person with high degree of self-confidence will usually try to do things without any fear as he/she has more of "I can do" tendency and in the context of agriculture; this makes him more positive in seeking opportunities in agriculture. The present finding of the study was in further proof of the findings of Christian (2010) [2], Deena *et al.*, (2018) [11].

An attempt has been made to find out the amount of contribution made by the profile characteristics in explaining the variation in the dependent variable i.e., attitude of polytechnic students towards diploma programme. The results are presented in table 2.

Multiple linear regression analysis of selected independent variables with Attitude towards diploma programme

Table 2: Multiple linear regression analysis of independent variables with Attitude

(n=240)

S. No.	Independent variables	Regression coefficient	Standard error	't' value
1.	Gender	-0.182	0.518	-0.351
2.	Academic achievement	0.527	0.273	1.929
3.	Medium of Instruction in X^{th} class	0.533	0.522	1.022
4.	Education of father	0.194	0.191	1.015
5.	Education of mother	0.111	0.195	0.573
6	Size of land holding	0.659	0.206	3.193**
7	Annual income of parent	-3.139	0.000	-0.374
8.	Type of family	0.451	0.544	0.30
9.	Caste	0.463	0.253	1.831
10.	Family occupation	0.086	0.167	0.517
11.	Rural urban background	-0.301	0.552	-0.544
12	Participation in extracurricular & co-curricular activities	0.112	0.033	3.394**
13	Library exposure	-0.068	0.060	-1.129
14	Mass media exposure	0.380	0.106	3.598**
15	Infrastructure facilities	-0.083	0.055	-1.502
16	Achievement motivation	1.915	0.147	13.001**
17	Self-confidence	0.508	0.120	4.237**

a= 28.153, R^2= 0.706, ** Significant at the 0.01% level. NS- Non Significant, * Significant at the 0.05% level.

From the above table the MLR equation can be fit as

$Y=28.153+-0.182x_1+0.527x_2 + 0.533x_3 + 0.194x_4 + 0.111x_5 + 0.659x_6 + -3.139x_7 + 0.451x_8 + 0.463x_9 + 0.086x_{10} + -0.301x_{11} + -0.112x_{12} + -0.068x_{13} + 0.380x_{14} + -0.083x_{15}+ 1.915x_{16} + 0.508x_{17}$

It could be inferred that the multiple linear regression equation with seventeen-selected profile characteristics put together contributed 70.60 percent to the total variance in the attitude of polytechnic students towards diploma programme and the remaining 29.40 percent may be due to the extraneous and un identified profile characteristics effect.

Conclusion

Out of seventeen profile characteristics of polytechnic students, Academic achievement, Education of father, Education of mother, Size of land holding, Caste, Family occupation, Participation in Extracurricular & co-curricular activities, Mass media exposure, Achievement motivation and Self-confidence showed positive significant relationship with attitude. On the other hand left over variables like Gender, Medium of instruction in X^{th} class, Annual income, Type of family, Rural urban background, Library exposure showed positive non-significant and infrastructure facilities showed negative non-significant relationship with attitude.

The multiple linear regression equation with seventeen selected profile characteristics put together contributed 70.60 percent to the total variance in the attitude of polytechnic students towards diploma programme, the remaining 29.40 percent may be due to the extraneous, and un identified profile characteristics effect.

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