



RELATIONSHIP OF SKILLS WITH THE FAMILY ENVIRONMENT OF TECHNICAL STUDENTS

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Abstract

Skills are necessary for success in this technical world. The present study examines the relationship of skills with the family environment of the technical students. Descriptive survey method has been used in this study. 300 technical students from Kumaun region were included using multistage stratified random sampling technique. Skills Measurement Scale developed by investigator and Family Environment Scale developed by Dr. Harpreet Bhatia and Dr. N. K. Chadha were used to collect the data. Pearson's coefficient of correlation was used to analyze the data. Significant negative relationship of cohesion and organization dimension of family environment was found with generic, soft and non-technical skills of technical students. Significant positive relationship of expressiveness dimension of family environment was found with technical skills and attributes of technical students. Negative relationship of independence and control dimension of family environment was found with soft and non-technical skills of technical students.

Keywords: Skills, Family Environment and Technical Students.



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INTRODUCTION

21st century is the century of knowledge. In this era of competition, people who have knowledge and skills would survive and progress. It is an undeniable fact that the level of achievement depends on student's ability to think independently and their level of professional achievement depends on their skills. UNESCO defines knowledge process into four aspects: learning to learn, learning to do, learning to live together and learning to be. All these aspects give emphasis on such education which may produce useful, usable, employable and adoptable students.

At present, the scenario of school education is not very inspiring. All the stake holders of education are in a state of despair and indifference. Parents, consumed by the ambition of highly paying lucrative careers for their children, continue to push them for examination success and high grades. As a result, the focus has shifted from learning for better understanding to learning for examination success. The entire process becomes very monotonous and machine like and learning becomes dull and loses its significance. At this juncture, it becomes need of day to pay more and more attention on the development of skills in them.

Skills are viewed as both essential to the appropriate functioning of a business and important to the employability of recent graduates, but also necessary for students to feel confident in their abilities when entering the workplace (*Andrews and Higson 2008*). It has been noted that there is increasing pressure on education to verify that students are, indeed, learning what is needed in both technical and non-technical areas (*Aasheim and Williams, 2009*). Much research has been done on the importance of skills for students as well as employees. *Hagan and Bouchard (2016)* revealed in their research that non-technical skills are mandatory for the students of information technology.

Bailey (2014) indicated that non-technical skills are necessary for success in this technical world. He revealed that the students who have skills of problem solving, team work, listening, the ability adapt to new technologies and languages, time management, the ability to transfer knowledge to application, multi-tasking, verbal communication, visualize and conceptualize are mostly required by IT companies. *Yahya et al. (2017)* studied the technical and employability skills of the students and found that implementation of scientific approach has significant effect on the development of the skills among students.

Makasiranondh et al. (2011) examined the students' opinion on the development of non-technical skills and found that those students who had workplace experience more fully appreciated the role of workplace soft skills than those who did not have such experience. *Diamante (2014)* studied the influence of career development learning on the employability skills of ICT students. He found that the level of their employability skills was moderate. Further, it was confirmed that career development learning is predictor of employability skills. *Bakar and Hanafi (2007)* found that level of employability was very high among the technical and vocational students of Malaysia.

Thus, the aforesaid discussion clearly indicates that many scholars have showed the importance of various skills for the individuals and much work has been done on the skills of the people. But the researcher feels that there is a paucity of literature regarding the relationship between family environment and skills of technical students. The present study will be an endeavor to fill this research gap. Hence, it becomes necessary to understand the nature of relationship of skills with the family environment of technical students of Kumaun region of Uttarakhand.

OBJECTIVES OF THE STUDY

1. To study the relationship of generic skills with family environment among technical students.
2. To study the relationship of soft skills with family environment among technical students.
3. To study the relationship of non-technical skills with family environment among technical students.
4. To study the relationship of technical skills with family environment among technical students.
5. To study the relationship of attributes with family environment among technical students.

HYPOTHESES OF THE STUDY

1. There is no significant relationship of skills with family environment among technical students.
2. There is no significant relationship of soft skills with family environment among technical students.
3. There is no significant relationship of non-technical skills with family environment among technical students.
4. There is no significant relationship of technical skills with family environment among technical students.
5. There is no significant relationship of attributes with family environment among technical students.

METHODOLOGY

❖ Method Used

The researcher has adopted descriptive survey method in the present study.

❖ Population and Sample of the Study

For this study, all the technical students of Poly-Technic colleges and ITIs of Kumaun region of Uttarakhand state are taken as population. 300 technical students have been selected through multistage stratified random sampling technique.

❖ Statistical Analysis

Pearson's coefficient of correlation has been used for the statistical analysis.

RESULTS

Table 1

Relationship of Skills with Cohesion Dimension of Family Environment of

Technical Students

(N = 300, df = 298)

Variables	Skills				
	Generic 'r' Value	Soft 'r' Value	Non-Technical 'r' Value	Technical 'r' Value	Attributes 'r' Value
Cohesion Dimension of Family Environment	-0.204**	-0.229**	-0.319**	0.106	0.010

** = *Significant at 0.01 Level of Significance.*

The table 1 shows that the first 'r' value between generic skills and cohesion dimension of family environment is -0.204, which has been found significant at 0.01 level of significance. It indicates a low negative correlation between the variables. It means that generic skills of the technical students increase or decrease slightly with the decrease or increase in the cohesive environment of the family.

The second 'r' value between soft skills and cohesion dimension of family environment is -0.229, which has been found significant at 0.01 level of significance. It shows a low negative correlation between the variables. It means that soft skills of the technical students increase or decrease slightly with the decrease or increase in the cohesive environment of the family.

The third 'r' value between non-technical skills and cohesion dimension of family environment is -0.319, which has been found significant at 0.01 level of significance. It also shows a low negative correlation between the variables. It indicates that non-technical skills of the technical students increase or decrease slightly with the decrease or increase in the cohesive environment of the family.

The fourth 'r' value between technical skills and cohesion dimension of family environment is 0.106, which has not been found significant even at 0.05 level of significance. It shows a very low positive correlation between the variables but it has not been found significant. It indicates that there is no significant relationship of technical skills with cohesion dimension of family environment among technical students.

The fifth 'r' value between attributes and cohesion dimension of family environment is 0.010, which has also not been found significant even at 0.05 level of significance. It shows

a very low positive correlation between the variables but it has not been found significant. It indicates that there is no significant relationship of attributes with cohesion dimension of family environment among technical students.

It may be concluded that three r-values are found significant while two r-values are found insignificant. Thus, the null hypothesis that *“There is no significant relationship of skills with cohesion dimension of family environment of technical students”* is rejected for generic skills, soft skills and non-technical skills and accepted for technical skills and attributes.

Table 2

Relationship of Skills with Expressiveness Dimension of Family Environment of Technical Students

(N = 300, df = 298)

Variables	Skills				
	Generic	Soft	Non-Technical	Technical	Attributes
Expressiveness Dimension of Family Environment	-0.089	-0.074	-0.204**	0.332**	0.136*

** = *Significant at 0.01 Level of Significance.*

* = *Significant at 0.05 Level*

of Significance.

The table 2 shows that the first ‘r’ value between generic skills and expressiveness dimension of family environment is -0.089, which has not been found significant even at 0.05 level of significance. It indicates a very low negative correlation between the variables but it has not been found significant. It means that generic skills of the technical students has no significant relationship with the expressiveness dimension of family environment.

The second ‘r’ value between soft skills and expressiveness dimension of family environment is -0.074, which has not been found significant even at 0.05 level of significance. It shows a very low negative correlation between the variables but it has not been found significant. It means that soft skills of the technical students has no significant relationship with the expressiveness dimension of family environment.

The third ‘r’ value between non-technical skills and expressiveness dimension of family environment is -0.204, which has been found significant at 0.01 level of significance. It shows a low negative correlation between the variables. It indicates that non-technical

skills of the technical students increase or decrease slightly with the decrease or increase in the expressiveness in the family.

The fourth ‘r’ value between technical skills and expressiveness dimension of family environment is 0.332, which has been found significant at 0.01 level of significance. It shows a low positive correlation between the variables. It indicates that technical skills of the technical students increase or decrease slightly with the increase or decrease in the expressiveness in the family.

The fifth ‘r’ value between attributes and expressiveness dimension of family environment is 0.136, which has been found significant at 0.05 level of significance. It shows a very low positive correlation between the variables. It shows that attributes of the technical students increase or decrease very slightly with the increase or decrease in the expressiveness in the family.

It may be concluded that three r-values are found significant while two r-values are found insignificant. Thus, the null hypothesis that “*There is no significant relationship of skills with expressiveness dimension of family environment of technical students*” is rejected for non-technical skills, technical skills and attributes and accepted for generic skills and soft skills.

Table 3

Relationship of Skills with Conflict Dimension of Family Environment of

Technical Students

(N = 300, df = 298)

Variables	Skills				
	Generic	Soft	Non-Technical	Technical	Attributes
Conflict Dimension of Family Environment	-0.128*	0.255**	0.293**	0.239**	0.141*

** = Significant at 0.01 Level of Significance.

* = Significant at 0.05 Level

of Significance.

The table 3 shows that the first ‘r’ value between generic skills and conflict dimension of family environment is -0.128, which has been found significant at 0.05 level of significance. It shows a very low negative correlation between the variables. It means that generic skills of the technical students increase or decrease very slightly with the decrease or increase of conflict in the family.

The second 'r' value between soft skills and conflict dimension of family environment is 0.225, which has been found significant at 0.01 level of significance. It indicates a low positive correlation between the variables. It means that soft skills of the technical students increase or decrease slightly with the increase or decrease of the conflict in the family.

The third 'r' value between non-technical skills and conflict dimension of family environment is 0.293, which has been found significant at 0.01 level of significance. It also reveals a low positive correlation between the variables. It shows that non-technical skills of the technical students increase or decrease slightly with the increase or decrease of conflict in the family.

The fourth 'r' value between technical skills and conflict dimension of family environment is 0.239, which has been found significant at 0.01 level of significance. It shows a low positive correlation between the variables. It means that technical skills of the technical students increase or decrease slightly with the increase or decrease of conflict in the family.

The fifth 'r' value between attributes and conflict dimension of family environment is 0.141, which has been found significant at 0.05 level of significance. It shows a very low positive correlation between the variables. It reveals that attributes of the technical students increase or decrease very slightly with the increase or decrease of conflict in the family.

It may be concluded that all the five r-values are found significant. Thus, the null hypothesis that "*There is no significant relationship of skills with conflict dimension of family environment of technical students*" is rejected for generic skills, soft skills, non-technical skills, technical skills and attributes.

Table 4

Relationship of Skills with Acceptance and Caring Dimension of Family Environment of Technical Students

(N = 300, df = 298)

Variables	Skills				
	Generic	Soft	Non-Technical	Technical	Attributes
Acceptance and Caring Dimension of Family Environment	0.187**	-0.233**	-0.294**	0.245**	0.136*

** = Significant at 0.01 Level of Significance.

* = Significant at 0.05 Level

of Significance.

The table 4 shows that the first 'r' value of generic skills with acceptance and caring dimension of family environment is 0.187, which has been found significant at 0.01 level of significance. It shows a very low positive correlation between the variables. It means that generic skills of the technical students increase or decrease very slightly with the decrease or increase of acceptance and care in the family.

The second 'r' value of soft skills with acceptance and caring dimension of family environment is -0.233, which has been found significant at 0.01 level of significance. It indicates a low negative correlation between the variables. It means that soft skills of the technical students increase or decrease slightly with the decrease or increase of the acceptance and care in the family.

The third 'r' value of non-technical skills with acceptance and caring dimension of family environment is -0.294, which has been found significant at 0.01 level of significance. It shows a low negative correlation between the variables. It means that non-technical skills of the technical students increase or decrease slightly with the decrease or increase of acceptance and care in the family.

The fourth 'r' value of technical skills with acceptance and caring dimension of family environment is 0.245, which has been found significant at 0.01 level of significance. It suggests a low positive correlation between the variables. It means that technical skills of the technical students increase or decrease slightly with the increase or decrease of acceptance and caring in the family.

The fifth 'r' value of attributes with acceptance and caring dimension of family environment is 0.136, which has been found significant at 0.05 level of significance. It shows a very low positive correlation between the variables. It reveals that attributes of the technical students increase or decrease very slightly with the increase or decrease of acceptance and care in the family.

It may be concluded that all the five r-values are found significant. Thus, the null hypothesis that "***There is no significant relationship of skills with acceptance and caring dimension of family environment of technical students***" is rejected for generic skills, soft skills, non-technical skills, technical skills and attributes.

Table 5

Relationship of Skills with Independence Dimension of Family Environment of Technical Students

(N = 300, df = 298)

Variables	Skills				
	Generic	Soft	Non-Technical	Technical	Attributes
Independence Dimension of Family Environment	-0.112	-0.195**	-0.235**	0.377**	0.151**

** = *Significant at 0.01 Level of Significance.*

The table 5 shows that the first ‘r’ value between generic skills and independence dimension of family environment is -0.112, which has not been found significant even at 0.05 level of significance. It indicates a very low negative correlation between the variables but it has not been found significant. It indicates that there is no significant relationship of generic skills with independence dimension of family environment among technical students.

The second ‘r’ value between soft skills and independence dimension of family environment is -0.195, which has been found significant at 0.01 level of significance. It shows a very low negative correlation between the variables. It indicates that soft skills of the technical students increase or decrease very slightly with the decrease or increase of the independence in the family.

The third ‘r’ value between non-technical skills and independence dimension of family environment is -0.235, which has been found significant at 0.01 level of significance. It suggests a low negative correlation between the variables. It means that non-technical skills of the technical students increase or decrease slightly with the decrease or increase of independence in the family.

The fourth ‘r’ value between technical skills and independence dimension of family environment is 0.377, which has been found significant at 0.01 level of significance. It reveals a low positive correlation between the variables. It means that technical skills of the technical students increase or decrease slightly with the increase or decrease of independence in the family.

The fifth ‘r’ value between attributes and independence dimension of family environment is 0.151, which has been found significant at 0.01 level of significance. It shows a very low positive correlation between the variables. It reveals that attributes of the technical

students increase or decrease very slightly with the increase or decrease of independence in the family.

It may be concluded that four r-values are found significant while only one r-value is found insignificant. Thus, the null hypothesis that “*There is no significant relationship of skills with independence dimension of family environment of technical students*” is rejected for soft skills, non-technical skills, technical skills and attributes and accepted for generic skills.

Table 6

Relationship of Skills with Active Recreational Orientation Dimension of Family Environment of Technical Students

(N = 300, df = 298)

Variables	Skills				
	Generic	Soft	Non-Technical	Technical	Attributes
Active Recreational Orientation Dimension of Family Environment	-0.073	-0.164**	-0.236**	0.380**	0.201**

** = *Significant at 0.01 Level of Significance.*

The table 6 shows that the first ‘r’ value between generic skills and active recreational orientation dimension of family environment is -0.073, which has not been found significant even at 0.05 level of significance. It shows a very low negative correlation between the variables but it has not been found significant. It means that there is no significant relationship of generic skills with active recreational orientation dimension of family environment among technical students.

The second ‘r’ value between soft skills and active recreational orientation dimension of family environment is -0.164, which has been found significant at 0.01 level of significance. It indicates a very low negative correlation between the variables. It shows that soft skills of the technical students increase or decrease very slightly with the decrease or increase of the active recreational orientation in the family.

The third ‘r’ value between non-technical skills and active recreational orientation dimension of family environment is -0.236, which has been found significant at 0.01 level of significance. It reveals a low negative correlation between the variables. It means that non-technical skills of the technical students increase or decrease slightly with the decrease or increase of active recreational orientation in the family.

The fourth ‘r’ value between technical skills and active recreational orientation dimension of family environment is 0.380, which has been found significant at 0.01 level of significance. It suggests a low positive correlation between the variables. It means that technical skills of the technical students increase or decrease slightly with the increase or decrease of active recreational orientation in the family.

The fifth ‘r’ value between attributes and active recreational orientation dimension of family environment is 0.201, which has been found significant at 0.01 level of significance. It shows a low positive correlation between the variables. It indicates that attributes of the technical students increase or decrease slightly with the increase or decrease of active recreational orientation in the family.

It may be concluded that four r-values are found significant while only one r-value is found insignificant. Thus, the null hypothesis that “*There is no significant relationship of skills with active recreational orientation dimension of family environment of technical students*” is rejected for soft skills, non-technical skills, technical skills and attributes and accepted for generic skills.

Table 7

Relationship of Skills with Organization Dimension of Family Environment of Technical Students

(N = 300, df = 298)

Variables	Skills				
	Generic	Soft	Non-Technical	Technical	Attributes
Organization Dimension of Family Environment	-0.287**	-0.405**	-0.430**	0.029	-0.109

** = *Significant at 0.01 Level of Significance.*

The table 7 shows that the first ‘r’ value between generic skills and organization dimension of family environment is -0.287, which has been found significant at 0.01 level of significance. It indicates a low negative correlation between the variables. It means that generic skills of the technical students increase or decrease slightly with the decrease or increase in the organized environment of the family.

The second ‘r’ value between soft skills and organization dimension of family environment is -0.405, which has been found significant at 0.01 level of significance. It shows a moderate negative correlation between the variables. It means that soft skills of the

technical students increase or decrease moderately with the decrease or increase in the organized environment of the family.

The third 'r' value between non-technical skills and organization dimension of family environment is -0.430, which has been found significant at 0.01 level of significance. It also shows a moderate negative correlation between the variables. It indicates that non-technical skills of the technical students increase or decrease moderately with the decrease or increase in the organized environment of the family.

The fourth 'r' value between technical skills and organization dimension of family environment is 0.029, which has not been found significant even at 0.05 level of significance. It shows a very low positive correlation between the variables but it has not been found significant. It indicates that there is no significant relationship of technical skills with organization dimension of family environment among technical students.

The fifth 'r' value between attributes and organization dimension of family environment is -0.109, which has also not been found significant even at 0.05 level of significance. It shows a very low negative correlation between the variables but it has not been found significant. It indicates that there is no significant relationship of attributes with organization dimension of family environment among technical students.

It may be concluded that three r-values are found significant while two r-values are found insignificant. Thus, the null hypothesis that "*There is no significant relationship of skills with organization dimension of family environment of technical students*" is rejected for generic skills, soft skills and non-technical skills and accepted for technical skills and attributes.

Table 8

Relationship of Skills with Control Dimension of Family Environment of Technical Students

(N = 300, df = 298)

Variables	Skills				Attributes
	Generic	Soft	Non-Technical	Technical	
Control Dimension of Family Environment	-0.060	-0.128*	-0.119*	0.015	-0.080

* = *Significant at 0.05 Level of Significance.*

The table 8 shows that the first 'r' value between generic skills and control dimension of family environment is -0.060, which has not been found significant even at 0.05 level of

significance. It shows a very low negative correlation between the variables but it has not been found significant. It indicates that there is no significant relationship of generic skills with control dimension of family environment among technical students.

The second 'r' value between soft skills and control dimension of family environment is -0.128, which has been found significant at 0.05 level of significance. It suggests a very low negative correlation between the variables. It indicates that soft skills of the technical students increase or decrease very slightly with the decrease or increase of control in the family.

The third 'r' value between non-technical skills and control dimension of family environment is -0.119, which has been found significant at 0.05 level of significance. It also shows a very low negative correlation between the variables. It indicates that non-technical skills of the technical students increase or decrease very slightly with the decrease or increase of control in the family.

The fourth 'r' value between technical skills and control dimension of family environment is 0.015, which has not been found significant even at 0.05 level of significance. It shows a very low positive correlation between the variables but it has not been found significant. It indicates that there is no significant relationship of technical skills with control dimension of family environment among technical students.

The fifth 'r' value between attributes and control dimension of family environment is -0.080, which has also not been found significant even at 0.05 level of significance. It shows a very low negative correlation between the variables but it has not been found significant. It indicates that there is no significant relationship of attributes with control dimension of family environment among technical students.

It may be concluded that two r-values are found significant while three r-values are found insignificant. Thus, the null hypothesis that "***There is no significant relationship of skills with control dimension of family environment of technical students***" is rejected for soft skills and non-technical skills and accepted for generic skills, technical skills and attributes.

CONCLUSIONS

On the basis of the interpretation of the data, following conclusions can be presented as below:

1. Significant negative relationship of cohesion dimension of family environment was found with generic, soft and non-technical skills of technical students. It indicates that generic, soft and non-technical skills of the technical students increase or decrease with the decrease or increase in the cohesive environment of the family.
2. Significant negative relationship of expressiveness dimension of family environment was found with non-technical skills of technical students. It indicates that non-technical skills of the technical students increase or decrease with the decrease or increase in the expressive environment of the family. On the other hand, significant positive relationship of expressiveness dimension of family environment was found with technical skills and attributes of technical students. It shows that technical skills and attributes of the technical students increase or decrease with the increase or decrease in the expressive environment of the family.
3. Significant negative relationship of conflict dimension of family environment was found with generic skills of technical students. It indicates that generic skills of the technical students increase or decrease with the decrease or increase in the conflicting environment of the family. On the other hand, significant positive relationship of conflict dimension of family environment was found with soft skills, non-technical skills, technical skills and attributes of technical students. It shows that soft skills, non-technical skills, technical skills and attributes of the technical students increase or decrease with the increase or decrease in the conflicting environment of the family.
4. Significant negative relationship of acceptance and caring dimension of family environment was found with soft and non-technical skills of technical students. It indicates that soft and non-technical skills of the technical students increase or decrease with the decrease or increase in the acceptance and caring environment of the family. On the other hand, significant positive relationship of acceptance and caring dimension of family environment was found with generic, technical skills and attributes of technical students. It shows that generic, technical skills and attributes of the technical students increase or decrease with the increase or decrease in the acceptance and caring environment of the family.
5. Significant negative relationship of independence dimension of family environment was found with soft and non-technical skills of technical students. It indicates that soft and non-technical skills of the technical students increase or decrease with the decrease or

increase in the independent environment of the family. On the other hand, significant positive relationship of independence dimension of family environment was found with technical skills and attributes of technical students. It shows that technical skills and attributes of the technical students increase or decrease with the increase or decrease in the independent environment of the family.

6. Significant negative relationship of active recreational orientation dimension of family environment was found with soft and non-technical skills of technical students. It indicates that soft and non-technical skills of the technical students increase or decrease with the decrease or increase in the active recreational oriented environment of the family. On the other hand, significant positive relationship of active recreational orientation dimension of family environment was found with technical skills and attributes of technical students. It shows that technical skills and attributes of the technical students increase or decrease with the increase or decrease in the active recreational oriented environment of the family.

7. Significant negative relationship of organization dimension of family environment was found with generic, soft and non-technical skills of technical students. It indicates that generic, soft and non-technical skills of the technical students increase or decrease with the decrease or increase in the organized environment of the family.

8. Significant negative relationship of control dimension of family environment was found with soft and non-technical skills of technical students. It indicates that soft and non-technical skills of the technical students increase or decrease with the decrease or increase in the controlled environment of the family.

IMPLICATIONS OF THE PRESENT STUDY

This study has attempted to discover the role of family environment on the skills of technical students. This findings of study may have important bearings for the teachers, administrators, policy makers, counselors and especially parents and their children. The findings of this study may provide the platform for influencing policy directions. Skills are at the core to improve the employment outcomes of the individuals and to increase the productivity and growth of any nation. This is particularly relevant for today's globalized world which requires a high-level cognitive and behavioral skills. As the study revealed expressiveness, acceptance and caring and organization were important contributing factors influencing the level of skills of the technical students, so it becomes the duty of the parents to have more expressive, caring and organized environment in the family. They should

provide their children a balanced environment of independence and control to become skilful, useful and employable youth. Skills training should be an important aspect of school enrichment program also.

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