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STUDENTS' PERCEPTIONS REGARDING SUBJECT SELECTION BASED ON THE EXISTING SCOPE OF SUBJECT AND ITS IMPACT ON ACADEMIC ACHIEVEMENT IN HIGHER EDUCATION

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ABSTRACT

The purpose of this study was to investigate Students' perceptions regarding major subject selection based on the existing scope of the subject and its impact on academic achievement in higher education. The study was quantitative in nature thus survey research design was applied. Students of BS (7th &8th) semesters from 10 HEIs of Khyber Pakhtunkhwa comprised the target population. A sample size of 382 students' was selected out of 6247 through proportionate stratified sampling technique. Pearson product moment correlation(r) and leaner regression were applied as referential statistics. The findings reveal a weak positive correlation between subject selection based on scope of the subject and academic attainment, suggesting a noticeable impact. Recommendations comprise students should reflect on their long-term career goals and aspirations. They should choose a major that not only captures their interest but also aligns with their envisioned professional path. Parents should be informed about several career prospects connected with different majors. Guide their children in understanding the applied implications and possible career paths associated with their selected subjects. Govt. should establish strong guidance and counseling services within educational institutes. Further it should be ensured that competent professionals are available to support students in navigating the complications of subject choice and academic planning. These institutes should organize awareness campaigns to inform both students and their parents about the prominence of aptitude in academic accomplishment. Qualitative research need to be conducted in order to investigate in-depth knowledge about students' perceptions regarding subject selection. This study highlights the important role of extrinsic motivation in determining academic achievement, and presenting insights for students, parents, institutions, and policymakers.

Keywords: *Perceptions, Bachelor of Science/ studies (BS), existing scope of a subject, Academic Achievement*

Introduction

It is undeniable fact that individual difference are there among all human beings. Their way of talking, thinking and behaving are different. It is also a fact that personal interest plays big role in subject selection but in the existing scenario all students and their parents don't pursue this phenomenon. It has been noted that in the selection of subject students and their parents consider existing scope of a subject is one of the major factor. This scope may be in the shape of its market value, job opportunities and high expectation. It is a matter of concern where there is any association

between subject selection on the existing scope of a particular subject and academic achievement. In order to unveil the hidden reality in this regard an effort in shape of this research study was taken.

According to Eccles, (1983) students frequently select their disciplines based on societal perceptions of subject significance and possible career projections. Most of the students select such disciplines which have broader career opportunities. According to Hango and de Broucker (2007) students commonly consider the potential for job placement and progression when choosing their majors, leading them to select for fields professed as having bigger scope for occupation. Disciplines with apparent scope may inspire students more effectually, leading to increased appointment and academic attainment. According Schiefele et al. (2012), students are more probable to outshine in subjects they find pertinent and valuable, which often support with disciplines offering promising career forecasts.

Students' beliefs in their capability to succeed, known as self-efficacy, are influenced by the apparent scope of their selected discipline. Lent et al. (2000) recommend that students in disciplines seeming as offering bigger career chances incline to have higher levels of self-efficacy, which positively associates with academic accomplishment. The apparent scope of a discipline can affect students' long-term goals and perseverance in their academic chases. Eccles and Wigfield (2002) highlights that students are more probably to persevere in disciplines they recognize as leading to desirable occupation outcomes, resulting in continued struggle and academic success. Each discipline is unique and forms the basis for particular knowledge and skills. For example, subjects like mathematics and language arts are important for constructing critical thinking, problem-solving, and communication skills (Bergin, 1999).

Most of disciplines inspire interdisciplinary thinking, nurturing adaptability and origination. Fields like environmental science need knowledge from several areas such as biology, chemistry, and policy-making, organizing individuals for multilayered roles (Leal Filho et al., 2020). Students frequently select disciplines that offer hopeful career predictions. Carnevale, Smith, and Melton (2011) specify that the job market progressively favors candidates with skills in STEM fields and healthcare due to extraordinary demand and good salaries.

Analysis of labor market drifts impacts students' choices regarding disciplines. Reports from organizations like the Bureau of Labor Statistics (BLS) offer insights into projected job growth and wages possible across several industries, guiding students towards disciplines with promising predictions (Bureau of Labor Statistics, 2020). One of the major independent variables under examination in this research is subject selection on the basis of scope of a subject.

Significance of the Study

The study on students' perceptions regarding the subject selection based on the existing scope of a subject and its subsequent impact on academic achievement in higher education at the Bachelor of Studies/ Science (BS) level holds profound importance for several stakeholders, comprising students, teachers, policymakers, institutions, and society as a whole.

Knowing the impact of perceptions regarding subject selection on the scope of a subject at the BS level program is important for enabling more knowledgeable decision-making. By throwing light on these ways, the study can help students in making selections that support bitterly with their interests and goals, possibly leading to higher gratification and motivation in their academic quests.

Statement of the Problem

The process of choosing an academic subject is a crucial stage in the educational journey of students pursuing higher education. This choice is complex and multidimensional, influenced by several features, comprising personal interests, parental advice, peer recommendations, and the apparent importance of the selected subject. It is within this context that this research aims to explore students' practices and perceptions regarding subject selection on the existing scope of that particular subject at the Bachelor of Studies (BS) level program and their substantial impact on academic achievement. By addressing the research question, this study pursues to brighten the complex relationship between students' decision-making progressions, their chosen modes of subject, and the resulting effect on academic accomplishment in higher education.

Objective of the Study

To analyze the impact on academic achievements of subject selection on the basis of subject scope at BS level program.

Research Question

How does subject selection based on the existing scope of a subject influence students' academic achievement?

Null Hypothesis

There is no significant association between students' academic achievement and the selection of subject based on the existing scope of a subject.

Literature Review

Subject Selection on its Existing Scope

Subject selection on the basis of scope and importance of that particular subject can have substantial impact on student's academic and career realization. Motivation and rendezvous are increased when subject is align with one's goals, interests, and future ambitions which further leads to improve academic performance and chances for future accomplishment (Marzano, 2005) who choose their subjects on the basis of apparent scope and significance have more chances to develop a mastery-oriented

method to learning, characterized by a need to comprehend and master challenging contents (Gottfried, Fleming, & Gottfried, 2001). This particular approach has been connected with the higher success, greater self-efficacy, and more affirmative attitudes.

According to Abdullah & Alqurashi, (2020) external elements like the demands of the job market and social prospects can affect the students' perception of the importance of a subject. He ascertained in his study that students' perceptions of the importance of accounting as a subject were strappingly influenced by the opportunities of the job market. Likewise, Storen (2018) determined in his study that societal prospects played a vital role in the students' perception of the importance of mathematics.

When learners have a heartfelt interest in a subject and can realize its applicability to their future ambitions, they are more likely to outshine educationally. Discipline with a wide scope frequently gives chances for detailed learning and investigation. They let students to probe into several sides, promote a deeper understanding, and obtain widespread acquaintance and skills. This can positively affect academic accomplishment by nurturing critical thinking, logical capabilities, and subject mastery. Subjects with a wide range can give a base of understanding and skills to learners that can be utilized across numerous disciplines. This tractability and adaptableness can improve students' capability to grab interdisciplinary trials, follow various career paths, and adjust to developing educational and professional settings.

According to Rowley, (2000) the effect of subject importance on academic attainment in higher education is a theme that has gained substantial attention from investigators in the arena of education. Also sufficient numbers of Studies have revealed that learners' accomplishment is affected by their perception of the importance of a specific subject. Subjects with a wide range may occasionally be all-embracing and multifaceted, necessitating much time and energy to dominant. Students may sense overwhelmed by the size of content and the extensiveness of the subject. This can possibly cause strain, stress, or problems in handling academic assignment thus negatively affecting academic accomplishment. Becher, (1994) determined that all those students who acknowledged a subject to be more vital proved to have sophisticated accomplishment in that subject. This result was reliable over diverse disciplines, containing social sciences, natural sciences, and humanities.

Perception

According to Goldstein and Cacciamani (2021) "the process of organizing and interpreting sensory information, enabling us to recognize meaningful objects and events". This particular definition highlights the impression that perception comprises both the response of sensory information and the mental handling obligatory to make sense of that information.

Academic Achievement

Academic achievement is the term for the level of expertise in educational work gained or as formally attained familiarity with subjects at school level, which is typically demonstrated in the proportion of marks got by pupils in tests (Kohli, 1975). Academic success is a prerequisite for advancement to the next grade, according to several studies, and it is the cornerstone to all future achievement in life. Higher achievers have a tendency to maintain their level of success in the working sector as well.

According to Reis, Hahn, and Barkowski (1984), academic success has a big impact on how well students think of themselves. An analysis of associates of academic attainment and its ramifications for education experts and policy designers would be significant if one were to accomplish the academic objective of distinction and maximize academic achievement. Binet's labors to forecast children's scholastic accomplishment from their Intelligence quotient scores are a good place to start when recognizing the factors that affect academic success.

Methodology

Research Methodology

The principal aim of this study is to examine the impact of subject selection on the basis of existing scope and importance of a subject on academic achievement at BS level program, as well as to explore the associations between subject selection on personal interest and the academic attainment in the light of students' perceptions in HEIs (Higher Education Institutions) of the southern districts of Khyber Pakhtunkhwa, Pakistan. This study employs a descriptive and correlational research design. The following procedures were implemented for this study:

Research Design

This study uses a quantitative research design. This design was selected because it permits researchers to collect responses from a large number of participants within a reasonable time frame and is cost-effective (Sekaran & Bougie, 2016). Additionally, it is a cross-sectional research study in which data were collected and examined at a single point in time. Gray (2021) declares that a cross-sectional study is comparatively less subjective and provides greater accuracy. A main research tool, namely a survey, was employed as it offers a more correct representation of respondents' attitudes (Bell, Bryman & Harley, 2022).

Target Population

The target population for this study comprises students in the 7th and 8th semesters from 10 numbers of HEIs in the southern districts of Khyber Pakhtunkhwa, Pakistan. These semesters were nominated because, optional subjects are taught during initial semesters in Pakistani universities and colleges, while major subjects getting only superficial attention. Therefore, the 1st few semesters were excluded to get more accurate academic achievement of BS students in the form of GPA in their respective major subjects. The

total numbers of 7th and 8th semester students in the above-mentioned HEIs are 6247 (Director of Academics and principals of the relevant universities and colleges for the academic year 2022-23).

Sample

Sample was selected through a proportionate stratified sampling technique. The total sample size of 382 participants was determined following the guidelines provided by Krejcie and Morgan's table (1970), with a confidence level of 95% and a margin of error of 5%. The calculation was based on an estimated proportion of 0.5 for the population. This sample size was chosen to ensure statistical reliability while taking into consideration the available resources and constraints. Firstly, departments with 7th and 8th-semester students were selected randomly in each college and university, and then sample students were chosen according to the ratio of students in these institutions.

Research Instruments

A self-made questionnaire was used for data collection. The Questionnaire was developed while using five-point Likert scale in the light of literature and related studies under the supervision of supervisor. For the achievement, students GPA in the previous semesters were collected through questionnaire.

Data Analysis

First data was tabulated, then it was analyzed and interpreted in the light of objectives of the study, descriptive statistics in the shape of percentage mean and standard deviation were used for the detailed analysis of the data. To test the hypotheses of the study, inferential statistics in the form of Pearson product moment correlation and regression analysis were used, as both of the variables of this particular study were measured through interval scale which is believed as continuous variable (Glass et al, 1972; Lubke & Muthen, 2004).

Results

Table 1: Comparative Analysis of the Subject Selection Mode i.e. On the Basis of Personal Interest, on the Advice of Parents, on the Existing Scope of the Subject, and on the Recommendation of Peers/ Friend and Academic Achievements.

	N includ ed	perce nt	N exclud ed	Perce nt	Mean	N	Std. Deviati on
Academic achievement * sub. choice	382	100.0 %	0	0.0%			
On the basis of personal interest					3.51 17	16 6	.4058 3
On parents advice					3.14 71	93	.3646 1

On the basis of scope and importance of the subject	3.30	44	.2724
	71		0
On the basis of peer recommendation	2.63	70	.2274
	10		1
None of these	3.17	9	.4998
	50		4
Total	3.230	38	.4789
	1	2	2

Table 1 indicates that students who select subjects on the basis of personal interest have the highest mean score, followed by those who choose subjects on the basis of scope and importance, on parents' advice, for none of these reasons, and on the basis of peer recommendation. This advocates that students who select subjects based on personal interest incline to have higher perceived academic attainment.

Table-2 A Student Should Opt the Subject that has Higher Market Value

	SDA	DA	UD	A	SA	Total
Responses	17	104	26	185	50	382
Percentage	4%	28%	7%	48%	13%	100%

Table 2 shows that significant minority i.e. 32% of scholars declare disagreement with the idea that market value should be the primary factor manipulating the choice of a subject. This advocates that an outstanding portion of students may prioritize other deliberations, such as personal interest or passion, over the latent economic gains associated with a specific discipline. While most of the students i.e. 61% agree with the idea that market value should be considered when selecting a subject. This suggests that a significant portion of respondents believes in aligning their academic choices with potential economic profits.

Table-3. The Ratio of Success will be Higher if the Subject has a Market Value

	SDA	DA	UD	A	SA	Total
Responses	12	92	32	195	51	382
Percentage	3%	24%	8%	51%	14%	100%

Table 3 shows that a substantial minority i.e. 27% of students expresses disagreement with the idea that the market value of a subject is directly connected with the ratio of achievement. This suggests that a remarkable quota of students does not consider that selecting a subject based on its market value certainly guarantees academic achievement.

Table-4. For a Thorough Understanding Scope of Subject is More Important

	SDA	DA	UD	A	SA	Total
Responses	7	109	19	188	59	382
Percentage	2%	29%	5%	49%	15%	100%

Table 4 reveals that a significant lot of the respondents i.e. 49% agreed that the scope of the subject is vital for a thorough understanding. This advocates that a majority of students know the prominence of considering the scope when probing into a subject. About 34% of the respondents either disagreed (29%) or stated a neutral position (5%). This shows that there is a significant portion of the student population that may not prioritize or see the importance of the scope when it comes to understanding a subject genuinely. A small minority i.e. 2% strongly disagreed with the statement. This might suggest that a very less number of students feel that the scope of a subject is not a important factor in attaining a thorough understanding.

Table-5. Performance in a Subject is Directly Related to the Scope of Subject

	SDA	DA	UD	A	SA	Total
Responses	20	106	32	185	39	382
Percentage	5%	28%	9%	48%	10%	100%

Table 5 shows that almost more than half of the respondents i.e. 58% agree/ strongly agree that there is a direct association between the scope of a subject and their performance in that subject. This suggests that a considerable portion of students admits the impact of subject scope on academic performance. A combined 37% of respondents either disagreed (28%) or expressed a neutral position (9%). This shows that there is a substantial portion of students who do not recognize a direct association between the scope of a subject and their academic achievement. A small minority i.e. 5% strongly disagreed with the statement, suggesting that some students definitely consider that the scope of a subject is not directly connected to their performance.

Table-6. If I Find Another Chance to Select a Subject, I will Prefer a Subject Having Market Value

	SDA	DA	UD	A	SA	Total
Responses	19	152	17	141	53	382
Percentage	5%	40%	4%	37%	14%	100%

Table 6 reveals that a combined 51% of respondents either agree (37%) or strongly agree (14%) that they would favor choosing a subject with market value if given another chance. This advocates that a majority of students consider market value as a significant factor in their subject selection. A total of 49% of respondents either disagreed (40%) or expressed a neutral position (4%). This shows that a significant portion of students may not prioritize

		Coefficients		Coefficients		
		B	Std. Error			
1	(Constant)	2.747	.093		29.568	.000
	Subject selection on scope of subject	.144	.027	.266	5.370	.000

a. Dependent Variable: Academic achievement

Table 8 shows the model summary regarding the impact of subject selection on the scope of subject on academic achievement. The above table infers that the value of $R^2 = .071$ which indicates that 7% variation was occurred in dependent variable (academic achievement) due to predictor (subject selection on scope of the subject). The above table shows that the value of $F = 28.84$ which means model found fit. Positive beta value (.266) reveals that if a single unit increase in IV (subject selection based on the scope of subject) than .266 SD unit increase in DV (Academic achievement). The value of $p = .001$ less than .05 which depicts that null hypothesis is hereby rejected. Thus subject selection basis on the scope of subject has significant impact their academic achievement. The coefficient for Subject selection on the scope of the subject is 0.144. This means that, on average, for each one-unit increase in Subject selection on the scope of the subject, Academic achievement is expected to increase by 0.144 units.

Findings

Following were the findings of the research study on the “Students’ practices and perceptions regarding subject selection on the basis of scope of a subject and its impact on the academic achievement in higher education.

1. A substantial minority i.e. 32% of students express divergence with the idea that market value should be the chief factor influencing the choice of a subject. This advocates that an outstanding portion of students may prioritize other deliberations, such as personal interest or desire, over the potential economic benefits associated with a specific discipline.
2. A significant minority i.e. 27% of students express disagreement with the impression that the market value of a subject is straight away connected with the ratio of achievement. This puts forward that a prominent part of students do not consider that selecting a subject based on its market value essentially assures academic achievement.
3. A major portion of the participants i.e. (49% agreed that the scope of the subject is central for a thorough understanding. This suggests that a bulk of students know the prominence of considering the scope when investigating a subject at BS level program.

4. Approximately half of the surveyed participants i.e., 48% agree that there is a straight away association between the scope of a subject and their attainment in that subject. This suggests that a considerable portion of students admit the influence of subject scope on academic achievement.
5. Most of the respondents i.e. 51 % consider that they would prefer choosing a subject with market value if given another chance. This advocates that a majority of students consider market value as a important factor in their subject selection.
6. The coefficient for Subject selection on the scope of the subject is 0.144. This means that, on average, for each one-unit increase in Subject selection on the scope of the subject, Academic achievement is expected to increase by 0.144 units. The model is statistically significant (Sig. = 0.000), suggesting that Subject selection on the scope of the subject significantly predicts Academic achievement. Students reject that idea that existing market value of a subject should be the chief factor influencing the choice of a subject.

Conclusion

1. Students reject that idea that existing market value of a subject should be the chief factor influencing the choice of a subject.
2. Students do not consider that the market value of a subject is straight away connected with the ratio of achievement.
3. Students consider that the existing scope of the subject is important for a thorough understanding.
4. Students believe that there is a little bit association between the scope of a subject and their attainment in that subject.
5. Students consider that they would prefer choosing a subject with market value if given another chance.
6. The study suggests that subject selection based on the scope of the subject significantly influences academic achievement. Specifically, students who select subjects based on a broader scope tend to have higher academic achievement scores.

Implications

1. Student Autonomy and Choice: Most of students trust in the significance of having the right to select their major subject based on personal interest. This highlights the need for educational institutions to offer students with more independence in selecting their academic majors.
2. Intrinsic Motivation and Academic Success: The high correlation ($r = 0.494$) between subject selection based on personal interest and academic attainment highlights the positive effect of intrinsic motivation on educational consequences. Institutes should inspire and help

- students to follow subjects they are unaffectedly interested in to improve academic achievement.
3. **Individual Preferences and Academic Disciplines:** The considerable value placed on individual favorites in selecting academic disciplines (85%) stresses the importance of catering to diverse interests within the student population. Institutes should consider offering a diversity of subjects and malleable curriculum structures to accommodate individual favorites.
 4. **Future Decision-Making and Career Satisfaction:** The strong favorite stated by students (89%) for selecting subjects based on personal interest if given another chance proposes that intrinsic motivation meaningfully effects long-term gratification with academic choices. This may influence future career choices and inclusive life satisfaction.
 5. **Educational Support and Guidance:** Educational institutes should offer suitable support and guidance to assist students discover their interests and make knowledgeable decisions about their academic paths.

Recommendations

1. **For Students**
Students should reflect on their long-term career goals and aspirations. They should choose a major that not only captures their interest but also aligns with their envisioned professional path.
2. **For Parents**
Parents should be informed about several career prospects connected with different majors. Guide their children in understanding the applied implications and possible career paths associated with their selected subjects.
3. **For Govt. /Policy makers:**
Govt. / Policy makers should create and fortify career counseling programs at tertiary institutes. These programs should facilitate students in exploring their interests, understanding latent career paths, and making knowledgeable decisions about their academic pursuits.
4. **For colleges and universities:**
Universities and colleges should plan such admission standards that incorporate aptitude assessments along with academic performance and consider executing aptitude tests or interviews to measure students' inherent strengths and interests pertinent to the selected discipline.
5. **For employers:**
Employers, recruitment firms or even government departments should swing towards a competency-based hiring approach where applicants are gauged based on

their hands-on skills, industry knowledge, and ability to apply notional concepts to real-world situations.

6. For further research:

Qualitative research need to be conducted in order to investigate in-depth knowledge about students' perceptions regarding subject selection. Qualitative methods, such as interviews or focus group discussions, can provide richer insights into the decision-making procedures, motivations, and challenges students face when selecting subjects.

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