

Investigating Factors Affecting Students' Subject Selection at Secondary School Level

M. Javed

Abstract—The selection of subjects at secondary level is the first and foremost step that might lead students to get desired higher education and achieve successful destination. The present study was conducted to explore potential factors affecting students' subject selection at secondary school level in Pakistan. A sample consisting of 200 students, 50 teachers and 25 parents was selected randomly from Southern Punjab Pakistan. Both female and male respondents were addressed in the study. A questionnaire comprising of 36 items was developed to collect quantitative data from students and teachers while interview protocol was developed to collect qualitative data from parents. Descriptive and inferential statistical methods were applied to analyze the data. The findings of the study reveal that various factors such as students' potentiality, previous knowledge, parents' profession and financial position affect their choice of subjects at secondary school level. In addition, students prefer to opt for easy and interesting subjects. Some recommendations were furnished for students for the appropriate selection of subjects. Furthermore, teachers and parents were also suggested to provide valuable guidelines to students in the selection of subjects which would fulfill the demands of 21st century.

Index Terms—Subject selection, factors, potentiality, interest, previous knowledge, financial problems separated by commas.

I. INTRODUCTION

Students are considered central figure in educational system. They play a key role as builders of a nation. The selection of subjects at secondary school level plays a vital role throughout students' academic life. Selection of profession depends upon the selection of subjects if the subjects are selected wisely. An appropriate decision is helpful for students in achieving their goals. There are various reasons for selecting science, arts and technical subjects. Generally, the students are encouraged to opt for different subjects from different fields for their getting higher education, promoting technical skills and achieving better careers [1].

In Pakistani contexts, the students select subjects on their own choice and sometimes parents impose their choice in the selection of subjects for their children without considering the interest of their children. The parents also don't bother to know whether their children are interested or not. Subsequently, this thing becomes the cause of failure for the students in their studies. Subsequently, they fail to adopt their desired field for career. It is observed that science subjects

seem attractive to students. Some students are impressed by their teachers' personality while some are impressed by their fellows [2].

In the present era, occupation that ultimately depends upon the selection and study of the relevant subjects has become a fundamental index of the status and standards of self-respect. Generically, right from the childhood, an individual is unconsciously impressed by the suggestions of members of his/her family, friends, teachers and institutions [3]. Therefore, keeping in view the importance of the selection of subjects, the researcher intends to investigate factors affecting the selection of subjects at secondary level after the students have passed elementary school education.

II. LITERATURE REVIEW

A diverse range of subjects are taught at secondary school level in Pakistan where the schools follow the government approved curriculum [4]. The scientific knowledge is so vast that no one can understand and master it without classifying it in different disciplines of science, arts and technical subjects. Science has been defined in several ways by different experts. According to Chalmers [5] science is a cumulative and endless series of empirical observations which result in the formation of concepts, theories, laws and principles but with both concepts and theories being subject to modification in the light of further empirical observations. Science is both a body of knowledge and the process of acquiring it. It is man's relentless search for understanding of the environment. After having rigorous examination of scientific perspective, several ingredients of what science is and what scientist can do. Finally, science is a search of clarified understanding or interpretation of environment. In a very real sense, the product of scientific inquiry is a body of clarified concepts that attracts students for learning [6].

The term 'arts' deals with the study of subjects included in humanities. According to Hawkins [7], arts have so many meanings like human skills, study and creation of beautiful things, work of art, the fine arts, drawing, painting and architecture, system of rules (as opposed to science). The modern concept of art is to acquire skill and products, which are used or intended to stimulate satisfactory aesthetic experience [8]. Various subjects of arts are offered by secondary schools such as Arabic, Persian, Urdu, English, Punjabi (Languages), History, Business studies, Accounts, Geography, Philosophy, Physical Education and Education etcetera [9].

According to Clark, Threton, and Ewing [10], technical education may be defined as the part of one's education intended to help in developing occupational and professional

Manuscript received October 6, 2017; revised May 16, 2018.

M. Javed is with the Department of Education, The Islamia University of Bahawalpur, Pakistan (e-mail: muhammad.javed@iub.edu.pk).

skills. It also prepares individuals to enter into income generating employment. Science and technology have pervaded into all spheres of life. Applications of science have become an everyday experience not only for scientists and politicians but also for public. It will not be wrong to say that science has become an integral part of our social culture. According to Kukulska-Hulme [11], one needs to have basic knowledge of concepts and principles of science in order not only to enjoy the fruits of science but also to make informed decisions about health, education and environment while living in this increasingly technologically advanced world.

It is now a widely accepted view that modernization and development of societies is dependent upon their performance in the field of science and technology. Science and technology have become very important indicators of development. A nation's performance in science and its use of technology are the measures of its development. For progress and development we need to produce more and better scientists, engineers, and researchers, to achieve the objectives we need to improve science education. Science education has been assigned dual role; on one hand, it should aim to produce scientists and skilled manpower while on the other hand it should aim to provide scientific literacy to masses [12].

A. Role of Teacher

Through the ages teacher's role has been acclaimed by philosophers, thinkers and educationalists as a decisive factor in moulding and shaping the life of nation. A good teacher plays a dynamic role in providing guidance in students' subject selection [13]. A teacher is considered a life wire behind all the activities in the classroom' planning, organizing, managing, evaluating, guiding and providing inspiration. The role of teacher has become more complex, more invigorating and more responsible in the modern teaching learning process. The teacher guides students in their path to character building by inculcating the moral and ethical values and the accompanying virtues. There is a tendency among children to imitate a adults particularly teachers. Therefore, the influence of the teacher's character, his views and attitude are followed faithfully by the pupils. Hence, the teacher has to be a person of exemplary character upholding the moral and ethical values of the society [14].

According to Duffy, Warren, and Walsh [15], teachers play an important role in the progress and welfare of the society. He plays his role inside school by preparing students to be effective citizens while assumed as an agent of social changes outside the school. Eick and Reed [16] declare that the personality and character of the pupils cannot be developed if the teacher, who is the model to be followed, lacks character himself. He must acquire patience love and humility. He should be always frank and honest and avoid everything petty and mean. Then only a teacher can become a torchbearer unto others. Teacher inspires pupils towards building their character by his mesmerizing behaviour.

B. Teacher Student Relationships

Frenzel, Goetz, Lütke, Pekrun, and Sutton [17] suggest that the quality of the relationship between a teacher and student has an impact on the student's willingness to

participate in the classroom. In their views, if a sound positive relationship exists between a teacher and student, it will be a great advantageous for the successful completion of educational process. In addition, teachers play a vital role for students' subject selection. Schwerdt and Wuppermann [18] report that teachers' guidelines matter a lot for students to choose their subjects since students at secondary school level are not mature to decide about their subject selection that is a turning point in their academic career. Subsequently, students have to choose their field of employment based on their subjects.

III. OBJECTIVES OF THE STUDY

The key objective of the study was to investigate factors affecting students' subject selection at secondary school level in Pakistan. The objectives of the study were bifurcated as follows:

- 1) To identify factors affecting students' subject selection at secondary school level from students' perspectives.
- 2) To identify factors affecting students' subject selection at secondary school level from teachers' perspectives.
- 3) To identify factors affecting students' subject selection at secondary school level from parents' perspectives.

IV. RESEARCH QUESTIONS OF THE STUDY

Following research questions were formulated based on the research objectives of the study.

- 1) What factors affect students' subject selection at secondary school level from students' perspectives?
- 2) What factors affect students' subject selection at secondary school level from teachers' perspectives?
- 3) What factors affect students' subject selection at secondary school level from parents' perspectives?

V. SIGNIFICANCE OF THE STUDY

The current study will be very significant for students, teachers and parents for the selection of subjects at grass root level. The study will provide guidelines for parents in the selection of subjects for their kids. The teachers will be able to update their students about the scope of different subjects, which will help them to go in the field of their selection. Teachers will be able to provide guidance and counseling for their students that would be helpful for students for the selection of subjects.

VI. METHODOLOGY

A. Sampling

The target population for the present study was the students of grade X, teachers and parents from Pakistan. Therefore, a sample consisting of 200 students, 50 teacher and 25 parents was selected randomly from urban and rural areas of Southern Punjab Pakistan. Fifty per cent of the respondents/participants were females while 50 % were males.

B. Instrument

The purpose of the collection of data was to investigate factors affecting students' subject selection at secondary school level. Therefore, a mixed method approached was used in order to collect data. The qualitative data were collected from the students and teachers by using self-designed questionnaire while the qualitative data were gathered from parents through semi-structured interview protocol. A five point Likert scale (e.g., SA = Strongly Agree, A = Agree, UNC = Uncertain, DA = Disagree, and SDA = Strongly Disagree) was used in the questionnaire. Thirty-three items were included in the questionnaire (23 items for students and 10 items for teachers) while 12 items were added in the interview protocol. Three experts tested the content validity of the items included in the questionnaire and interview protocol as well. One expert taken from a university and two experts chosen from secondary schools tested the suitability of vocabulary, contents and themes of the instruments. All the experts checked the items thoroughly and provided productive comments. Therefore, some changes were made in the light of the experts' valuable comments, suggestions and recommendations.

VII. DATA COLLECTION

The qualitative and qualitative data were required to investigate factors affecting students' subject selection at secondary school level. Therefore, the questionnaire and interview protocol were used to collect the data. Prior permission was taken from the respondents and participants of the study. The respondents and participants of the study were given briefing regarding the objectives of the study. In addition, they were also assured that their identifications will never be disclosed in analysis of the data or at any other stage without their written permission and the information provided by them will be used for research purpose only.

VIII. DATA ANALYSIS

In connection with the analysis of quantitative data, frequencies of each item were calculated. On the other hand, NVivo version 10 was used to analyze the qualitative data and data reduction techniques were used to extract different themes. The participants of the interview were coded as T1 (Teacher 1), T2 (Teacher 2), T3 (Teacher 3)...and T25 (Teacher 25) for reporting of the results.

TABLE I: STUDENTS' VIEW ABOUT SUBJECT SELECTION

Sr.#	Item	SA	%	A	%	UNC	%	DA	%	SDA	%
1	Students select their subjects according to their own choice.	47	23.5	135	67.5	4	2	9	4.5	5	2.5
2	Students select their subjects on the basis of their caliber.	43	21.5	133	66.5	8	4	7	3.5	9	4.5
3	School environment plays vital role in students' choice of subjects.	41	20.5	119	59.5	7	3.5	15	7.5	18	9
4	Students' classmates motivate them to select the subjects.	71	35.5	45	22.5	15	7.5	18	9	51	25.5
5	The requirements of present age motivate students to select the subjects.	38	19	19	9.5	12	6	60	30	71	35.5
6	Students select subjects according to the trends of subjects in society.	35	17.5	21	10.5	13	6.5	59	29.5	72	36
7	Students opt for their subjects based on their awareness of the subjects.	39	19.5	119	59.5	8	4	13	6.5	21	10.5
8	Students select the subjects in view of their sound previous knowledge.	103	51.5	42	21	3	1.5	21	10.5	31	15.5
9	Students select easy and interesting subjects.	107	53.5	36	18	7	3.5	23	11.5	27	13.5
10	Students select those subjects in which they can get good marks.	118	59	33	16.5	9	4.5	19	9.5	21	10.5
11	Students select science subjects since they attract them.	39	19.5	72	36	21	10.5	35	17.5	33	16.5
12	Students choose subjects because of more job opportunities in the subjects.	38	19	98	49	21	10.5	34	17	9	4.5
13	Status of the job attracts students to choose subjects.	39	19.5	72	36	17	8.5	41	20.5	31	15.5
14	More chances of getting higher education attract students to select the subjects.	34	17	22	11	17	8.5	55	27.5	72	36
15	Students select subjects due to the availability of subjects in the school.	121	60.5	31	15.5	11	5.5	21	10.5	16	8
16	Students select subjects when they attract any national or international ideal personality.	27	13.5	21	10.5	29	14.5	51	25.5	72	36
17	Students can freely take decision themselves in selecting subjects.	34	17	55	27.5	24	12	56	28	31	15.5
18	Lack of financial sources is a great hurdle in the selection of subjects (especially science subjects)	107	53.5	27	13.5	17	8.5	27	13.5	22	11
19	Media also play a vital role to aware students about the importance of the subjects.	29	14.5	31	15.5	29	14.5	74	37	37	18.5
20	Private school administration misguides parents/ students about the subject selection.	27	13.5	33	16.5	21	10.5	74	37	45	22.5
22	Students select subjects keeping in mind their parents' profession.	28	14	33	16.5	28	14	72	36	39	19.5
23	Students cannot get proper guidance in the selection of their subjects because of their illiterate parents.	115	57.5	24	12	17	8.5	21	10.5	23	11.5

Students' views about subject selection were analyzed and in Table I. the respondents' frequencies against each statement are given

TABLE II: TEACHERS' ROLE IN THE SELECTION OF STUDENTS' SUBJECTS

Sr.#	Item	SA	%	A	%	U N C	%	D A	%	SD A	%
24	Teachers provide guidelines to students to select subjects based on their previous performance.	92	46	51	25.5	14	7	19	9.5	24	12
25	Teachers guide students to select subjects according to their potentiality.	105	52.5	33	16.5	8	4	31	15.5	23	11.5
26	Students select subjects after consulting with their teachers.	45	22.5	35	17.5	9	4.5	66	33	45	22.5
27	Teachers' teaching methodology attracts students to select their subjects.	99	49.5	25	12.5	15	7.5	33	16.5	28	14
28	Teachers' encouragement gives reinforcement to select the subjects.	108	54	21	10.5	7	3.5	35	17.5	29	14.5
29	Teachers motivate students to select subjects keeping in mind the students' interests.	27	13.5	88	44	11	5.5	41	20.5	33	16.5
30	Students select subjects after impressing the regularity and punctuality of their ideal teacher.	19	9.5	10 4	52	9	4.5	36	18	32	16
31	Teachers take personal interest in the selection of subjects.	19	9.5	37	18.5	13	6.5	88	44	43	21.5
32	Effective use of audio visual aids by teachers affects students' subject selection.	23	11.5	29	14.5	26	13	75	37.5	47	23.5
33	Students' good academic records in a particular subject urge them to select subjects.	95	47.5	45	22.5	9	4.5	32	16	19	9.5

The results indicate that the majority of the respondents (67.5%) agreed that they select their subjects according to their own choice. 66.5% agreed that they select their subjects on the basis of their caliber. School environment also plays a vital role in selecting subjects. Hence, the majority of the informants (59.5%) agreed that school environment affects students' choice of subjects. 59.5 % respondents reported that they opt for their subjects based on their awareness of the subjects. 36 % respondents say that they selected science subjects since they attract them while 49 % informants respond that they choose subjects keeping in mind job opportunities in the market. Status of the job also attracts students to choose subjects. In view of this factor, 36 % respondents are of the view that they choose subjects since status of job attracts them. Some of the respondents view that they can freely take decision themselves in selecting their subjects.

With regard to the selection of subjects, the majority of the informants (35.5%) strongly agreed that their classmates motivate them to select the subjects. More than fifty per cent students strongly agreed that they select their subjects in view of their sound previous knowledge while 53.5 % students strongly agreed that they select easy and interesting subjects. Around fifty per cent students strongly agreed that they select those subjects in which they can get good marks.

It is obvious that secondary schools offer a limited number of subjects where 60 % students strongly agreed that they select subjects due to the availability of subjects in their respective school. In connection with the selection of subjects, 53.5 respondents claim that lack of financial sources is a great hurdle in the selection of subjects especially science subjects. In addition, 57.5 % students cannot get proper guidance in the selection of their subjects because of their illiterate parents.

The above-mentioned findings are consistent to the results of a study carried out by Tang, Fouad, and Smith [19] who concluded that students choose their subjects according to their own choices. They also found that students select their subjects according to their potentiality and awareness they have. In addition, environment of their

home and school also affect their choice of subjects. Trautwein and Lüdtke [20] concluded that students' classmates' motivation plays a vital role in the selection of subjects.

The results indicate that the majority of the respondents strongly disagreed with the statement that the requirements of present age motivate them to select the subjects. They also strongly disagreed that they select subjects according to the trends of subjects in society. It can be concluded that according to the respondents, the requirements of present age and trends of subjects in society do not matter for the selection of subjects. In addition, 36 % students strongly disagreed with the statement that national or international ideal personality attracts them in the selection of subjects. These findings are consistent with the findings of Svahnberg, Aurum, and Wohlin [21] who concluded that students neither keep in mind the requirements of present age nor do they consider the trends of subjects in society while selecting subjects at secondary school level.

Teachers were also addressed to get their view regarding students' subject selection. Their views are given in Table II.

As regards the responses of the teachers regarding the students' subject selection. The majority of the respondents (46%) strongly agreed that teachers provide guidelines to students to select subjects based on their (students') previous performance. Students' ability matters a lot for the selection of subjects, henceforth, 52.5 respondents strongly agreed that teachers guide students to select subjects according to their potentiality. 49.5 per cent respondents strongly agreed that teachers' teaching methodology attracts students to select their subjects while 54 per cent teachers strongly agreed that their encouragement provides reinforcement to students for the selection of subjects. Another factor affects students' subject selection e.g. 47.5 respondents strongly agreed that students' good academic records in a particular subject urge them to select subjects. These findings are consistent with the results of Schwerdt and Wuppermann [18] who concluded that guidance and counseling provided by teachers assist students to select subjects. In addition, the findings of Clotfelter, Ladd, and

Vigdor [22] are quite similar to the findings of the current study.

According to the respondents' views, 44 per cent of them agreed that they motivate students to select subjects keeping in mind the students' interest while 52 % agreed that students select subjects after impressing the regularity and punctuality of their ideal teacher. A small number of the respondents (33%) disagreed that students select subjects after consulting with their teachers while 44 of the informants disagreed that teachers take personal interest in the selection of subjects. In addition, 37.5 % of the respondents disagreed that the effective use of audio visual aids by teachers affects students' subject selection. These findings are consistent with Thoonen, Slegers, Oort, Peetsma, and Geijssels [14] who found that teachers' motivation plays a vital role in the selection of students' subjects. Moreover, Rasul, Bukhsh, and Batool, [23] found that audio visual support students to choose their subjects.

A. Parents' Views Regarding Students' Selection of Subjects

In order to collect the qualitative data, 25 parents were addressed in the study. Interview technique was adopted to get the views of parents regarding students' choice for subject selection. The results indicate that the majority of the respondents were of the view that the students are not habitual to consult their teachers to select their subjects at secondary level. The students select their subjects after discussing their parents, friends and family members. In this respect, T5 states that students select subjects in which they are interested while T25 responds that the students choose relatively easy subjects. According to the participants, only a small number of the students choose those subjects, which can help them reach their career and employment goals. Similarly, a few students select subjects that can enhance their knowledge, skills and attitude. Only three of the participants (T1, T7 and T19) report that some of the students select subjects based on their sound previous knowledge and the market value of the subjects while only a few of the participants state that the students select subjects after impressing their teachers' teaching methodology. In addition, in view of the participants' opinions, teachers' attitude and school environment affect students' subject selection at secondary school level. Teachers' encouragement provides reinforcement to students for the selection of their subjects. Some of the participants argue that they intend to opt for various subjects; however, they have to choose only those subjects which are offered by their respective school.

IX. CONCLUSIONS AND DISCUSSION

It was concluded that a variety of factors play their role in the selection of various subjects. It was concluded from the findings that students' mental level and their sound previous knowledge matter a lot in the selection of subjects at secondary level. Students intend to choose those subjects that are easy and interesting or in which they can get good marks without difficulty. Teachers' methodology, school environment and the scope of job opportunities attract

students' for the selection of subjects. Similarly, personal encouragement and parents' profession motivate students for subject selection. Study of science subjects is also a modern trend in society but there are some financial problems for the poor students in selecting their desired subjects. The students have potential to study the modern and scientific subjects but unfortunately they cannot afford due to poverty.

X. RECOMMENDATIONS

In view of the findings, some recommendations are given. Students should select subjects according to the trends of subjects in society. They should prefer to select science subjects since their demand is greater than other subjects in society. Students should choose those subjects which have more chances of getting higher education. In this respect, media should play a vital role to extend awareness among students about the importance of the subjects. In addition, teachers should motivate students to select subjects keeping in mind the students' interests. Further studies can be carried out keeping in mind different variables such as students' gender, financial position and geographical locations of respondents.

REFERENCES

- [1] M. J. Bates, "Factors affecting subject catalog search success," *Journal of the Association for Information Science and Technology*, vol. 28, no. 3, pp. 161-169, 1977.
- [2] S. N. K. Mushtaq, "Factors affecting students' academic performance," *Global Journal of Management and Business Research*, vol. 12, no. 9, pp. 16-22, 2012.
- [3] A. Shabbir and S. Gregorio, "An examination of the relationship between women's personal goals and structural factors influencing their decision to start a business: The case of Pakistan," *Journal of Business Venturing*, vol. 11, no. 6, pp. 507-529, 1996.
- [4] Ministry of Education, National Plan of Action to Accelerate Education-Related MDGs 2013-16. (2013). *Achieving Universal Quality Primary Education in Pakistan*. [Online]. Available: <http://www.moent.gov.pk/policiesDetails.aspx>
- [5] A. F. Chalmers, *What Is This Thing Called Science?* Indianapolis: Hackett Publishing, 2013.
- [6] J. Osborne, S. Simon, and S. Collins, "Attitudes towards science: A review of the literature and its implications," *International Journal of Science Education*, vol. 25, no. 9, pp. 1049-1079, 2003.
- [7] J. Hawkins and R. E. Allen, *The Oxford Encyclopedic English Dictionary*, Oxford: University Press, USA, 1991.
- [8] C. Ballengee-Morris and P. L. Stuhr, "Multicultural art and visual cultural education in a changing world," *Art Education*, vol. 54, no. 4, pp. 6-13, 2001.
- [9] M. S. Farooq, A. H. Chaudhry, M. Shafiq, and G. Berhanu, "Factors affecting students' quality of academic performance: A case of secondary school level," *Journal of Quality and Technology Management*, vol. 7, no. 2, pp. 1-14, 2011.
- [10] R. W. Clark, M. D. Threton, and J. C. Ewing, "The potential of experiential learning models and practices in career and technical education & career and technical teacher education," *Journal of Career and Technical Education*, vol. 25, no. 2, 2010.
- [11] A. Kukulska-Hulme, "How should the higher education workforce adapt to advancements in technology for teaching and learning?" *The Internet and Higher Education*, vol. 15, no. 4, pp. 247-254, 2012.
- [12] M. O' Cargill, P. Connor, and Y. Li, "Educating Chinese scientists to write for international journals: Addressing the divide between science and technology education and English language teaching," *English for Specific Purposes*, vol. 31, no. 1, pp. 60-69, 2012.
- [13] G. Leflot, P. A. Lier, P. Onghena, and H. Colpin, "The role of teacher behavior management in the development of disruptive behaviors: An intervention study with the good behavior game," *Journal of Abnormal Child Psychology*, vol. 38, no. 6, pp. 869-882, 2010.

- [14] E. E. Thoonen, P. J. Slegers, F. J. Oort, T. T. Peetsma, and F. P. Geijsel, "How to improve teaching practices: The role of teacher motivation, organizational factors, and leadership practices," *Educational Administration Quarterly*, vol. 47, no. 3, pp. 496-536, 2011.
- [15] J. Duffy, K. Warren, and M. Walsh, "Classroom interactions: Gender of teacher, gender of student, and classroom subject," *Sex Roles*, vol. 45, no.9, pp. 579-593, 2001.
- [16] C. J. Eick and C. J. Reed, "What makes an inquiry-oriented science teacher? The influence of learning histories on student teacher role identity and practice," *Science Education*, vol. 86, no. 3, pp. 401-416, 2002.
- [17] A. C. Frenzel, T. Goetz, O. Lüdtke, R. Pekrun, and R. E. Sutton, "Emotional transmission in the classroom: Exploring the relationship between teacher and student enjoyment," *Journal of Educational Psychology*, vol. 101, no. 3, pp. 705-716, 2009.
- [18] G. Schwerdt and A. C. Wuppermann, "Is traditional teaching really all that bad? A within-student between-subject approach," *Economics of Education Review*, vol. 30, no. 2, pp. 365-379, 2011.
- [19] M. Tang, N. A. Fouad, and P. L. Smith, "Asian Americans' career choices: A path model to examine factors influencing their career choices," *Journal of Vocational Behavior*, vol. 54, no. 1, pp. 142-157, 1999.
- [20] U. Trautwein and O. Lüdtke, "Predicting homework motivation and homework effort in six school subjects: The role of person and family characteristics, classroom factors, and school track," *Learning and Instruction*, vol. 19, no. 3, pp. 243-258, 2009.
- [21] M. Svahnberg, A. Aurum, and C. Wohlin, "Using students as subjects — An empirical evaluation," in *Proc. the Second ACM-IEEE International Symposium on Empirical Software Engineering and Measurement*, pp. 288-290, ACM, October, 2008.
- [22] C. T. Clotfelter, H. F. Ladd, and J. L. Vigdor, "Teacher credentials and student achievement in high school a cross-subject analysis with student fixed effects," *Journal of Human Resources*, vol. 45, no. 3, pp. 655-681, 2010.
- [23] S. Rasul, Q. Bukhsh, and S. Batool, "A study to analyze the effectiveness of audio visual aids in teaching learning process at university level," *Procedia-Social and Behavioral Sciences*, vol. 28, pp. 78-81, 2011.



Muhammad Javed is serving as assistant professor in the Department of Education at The Islamia University of Bahawalpur, Pakistan. He did the PhD education (TESOL) from School of Educational Studies, Universiti Sains Malaysia, Malaysia. His research interests include TESOL, English as second language, language acquisition and learning, grammar teaching, language assessment, English language teacher training, language curriculum development.