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Preface

Department of Educational Studies was established under the Faculty of Education with the approval of the Academic Council of the University of Okara in its 7th meeting held on June 18, 2020. Currently, more than 300 students are enrolled in the department, which has national, international visiting, and regular faculty committed to expanding students' capacity through quality education, research, and training.

The department provides students with the opportunities to learn about a broad range of courses in the discipline of education in relevance to the national and international trends that may promote critical thinking among the students allowing them to produce innovative knowledge and gain skills in teaching, researching, and educating the people so that they can become a responsible, valuable and productive citizen. The students are encouraged to draw on interdisciplinary methods of critical analysis to bring a positive change in society.

Aligned with the vision of the department, the bi-annual research journal **Archives of Educational Studies (ARES)** aims to provide research findings and promote scholarship in various fields of educational studies such as educational practices, examinations of new procedures, cross-cultural education, education development, education policy, educational evaluation, educational leadership, educational psychology, educational technology, gender and education, urban education, literacy, research methodology, sociology of education, and other areas of education. *It is the first HEC-recognized national or international journal of the University of Okara published in print and online versions since 2021.*

I would highly appreciate the efforts of the Vice Chancellor of the University of Okara, **Prof. Dr. Sajid Rashid Ahmad**, and the Pro-Vice Chancellor **Prof. Dr. Muhammad Wajid** who always appreciated generating innovative ideas and providing various forums to execute and disseminate research. The production of this journal was not possible without their support and appreciation. We look forward to our readers for their feedback to further improve the quality and increase the circulation of this journal among the national and international scholarly communities.

(Dr. Syed A. Waheed)

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Making the Right Choice: Investigating the Factors Influencing Career Choices and Learning Preferences of Students at Higher Education

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Abstract

The study intends to explore the challenges of career choices and learning preferences of students in higher education. A qualitative research methodology was adopted to conduct this research. Convenient sampling technique was adopted to select the research sample from university students studying in the first semesters of BS programs. In total, fifty respondents were invited to participate in this research after obtaining their consent for interviews. A semi-structured type interview protocol was designed to collect data from the selected sample. Thematic analysis was carried out to analyze the interview transcripts. The findings identified the following key challenges of students which influenced the selection of the right field of study due to family and social pressures, high merit, lack of guidance from parents and teachers, and financial problems. As to learning preferences in higher education, respondents highlighted the following major challenges in their learning: their teachers are lacking advanced teaching methods, there is no alignment between teachers' teaching style and students' learning style, students face pressure of performance from parents and teachers. Students also revealed that their

teachers do not motivate their performance. Limitations and recommendations were also discussed.

Keywords: Career choices; Learning preferences; Higher Education; Thematic analysis; Qualitative study.

Introduction

Due to the increasing developments and boom in technology, the contemporary world of the job market is becoming more challenging than ever and it is continuously changing the professional landscape of the employment system (Donald, Ashleigh, & Baruch, 2018). This leads higher education learners to make a wise selection of their career at the time of entrance into higher education (Koech, Bitok, Rutto, Koech, Okoth, Korir, & Ngala, 2016). Nevertheless, career selection is the most crucial decision in one's life. Making a career choice means determining a field of study for the whole life (Pam, 2013). Students require guidance and support at this stage to make a better and wise decision for their future. At this stage, the role of schools, their teachers, counselors and parents is important to guide and support the child to make a better choice (Pitan & Atiku, 2017). Career choice is generally based on the aptitude of an individual towards that specific field. Though, the choices are also based on other dimensions, e.g., sufficient knowledge about the certain field, future prospect and available jobs in that particular field and individuals' personal attributes matching with that field (Ahmed, Sharif, & Ahmad, 2017). Moreover, other factors also contribute, for example, aptitudes, competencies, interests, self-concept, knowledge, skills, awareness, and benefits (See e.g., Shumba & Naong, 2012).

Career selection is not only an important decision, but it is quite challenging for students. There are certain major challenges which students commonly face during their career selection. For example, parents influence their choices, through pressure from family, friends and social circles (Cheong, 2018). A lack of guidance from school and teachers (Xing & Rojewski, 2018). Korir & Wafula (2012) stated that at this stage, students are not confident enough to make decisions about their future, they are often occupied with many choices and are unable to choose the best one (Korir & Wafula, 2012).

Besides career selection, learning in the preferred field of study is also of the utmost importance. It is believed that a learner can perform better in his selected field of interest compared to that field where he/she does not have any interest. This means, every individual has his/her own learning preference which mainly depends on personality, aptitude, interest and level of intelligence (REF). A person can only make a better choice when he is aware of his personality, aptitude and interest (Yenge, Massa, & Karlsson, 2018). Literature proved that a person can perform efficiently if his/her learning style matches with the teachers' teaching style (Arikpo, & Domike, 2015). It means learning style contributes to obtaining and assimilating knowledge at school and processing information. Since students are individually different from each other, there are a variety of learning styles matching with students' needs, interests, personality and level of intelligence (Yasemin & Gülbahar, 2013).

Thus, learning style is a broad framework of knowledge and skills that requires expertise in information processing and utilization in order to learn effectively (Moayyeri, 2015). If students' learning style is not aligned with teachers' teaching style, it might be crucial for students to give the required performance and efficiency that affects their career. It creates frustration, lack of interest and motivation among students and affects the learning environment that causes drop-outs at school (Lowy, 2013). To explore the factors, we planned this study to outline the certain challenges in career selection and learning preferences of students in higher education. This study will be conducted at a public sector university following the qualitative methodology.

Literature Review

The following section will present the literature on career choices and learning preferences of students and related challenges in higher education:

Career Choices

Career choice determines the next stage of an individual's life, it leads a person to what he/she wants to do in life (Pam, 2013). If there is proper counseling and guidance at the time of career selection, it can remove confusions and ambiguities and help students select better and suitable fields according to their interests and aptitudes (Nachmias & Walmsley, 2015). Career guidance facilitates students to better plan their activities and

enhanced knowledge about self helps to determine future goals). A better career can set up the whole life of an individual, build his confidence, skills and make his/her identity (Pitan & Atiku, 2017; Robertson, 2013). It also leads students to develop self-esteem and an enhanced level of confidence in their class and schools.

As mentioned elsewhere, there is growing and challenging competition in the job market which requires more proactive and skilled graduates to contribute to a knowledge-based economy in the country. If students make decisions at this stage of their lives, they can succeed in the competitive market (Mudulia, 2017). However, it is not that simple for students to identify and choose their careers. Many factors play their role in making these choices and, at the same time, it is quite a challenge for students to make such choices. Literature helps to identify the following key challenges:

Parents influence the career choice: this is the most important challenge which students face during their studies. Generally, parents push their children to select a field of study according to their choice, which is most of the time opposite to child interest (Wildman & Torres, 2002). Very often, parents also want to engage their children in their own family businesses despite their interests and abilities (Zody et al., 2006). In a Pakistani context, the majority of parents want to make their children doctors and engineers to earn handsome salaries without considering the choices of their children (Abbasi & Sarwat, 2014). This creates frustration in children and they cannot develop their interest and cannot adjust themselves in their studies, which turns to poor grades and drop-out.

Teachers influence career choices: In addition to parents, teachers also play a dominating role in career selection of the child. It is always helpful to get professional advice before making a career decision, but sometimes teachers influence them negatively and impose their choice on students (Faitar & Faitar (2013). Teachers should organize career counselling sessions at school to guide young students about their future and prospective fields of occupations (Ahmed, Sharif, & Ahmad, 2017).

Individuals' interest in a particular career: Students' interest and aptitude should be utmost preference in view of selecting a career. We can produce quality and skillful graduates if a career decision is based on this

criterion. Moreover, students' academic ability also plays an important role in career selection, which is again linked to aptitude (Beggs et al., 2008). Research has proved that students perform better if they for the career on the basis of their abilities, interest and aptitude.

Societal influence on making a career choice: Society also affects the students' choices at the time of career selection. For example, the job trends of society. Parents are also influenced by societal pressures and demands. If they see other children are intending to choose a specific career, they put pressure on their child to choose that specific field without considering his/her aptitude and abilities (Bhattacharya, 2013). This influence is mainly from society and sometimes within the family.

Employment prospects in relation to career choice: This is the most important factor influencing the students' choice in career selection. But this is primarily from parents, teachers and other stakeholders who are playing their role in students' lives. They usually unveil such choices to students through which they can secure a handsome job and salary package. But, this is not always true. Sometimes such choices are influenced due to recession and saturation in a particular field and graduates remain unemployed (Fraser, 2010). Moreover, students do not get their dream job and salaries (Beggs et al., 2008). In such situations, students get frustrated and they are unable to join other fields or start their own businesses. They feel themselves misfit for other jobs. If students are well aware of the facts, they can make good decisions.

Learning preferences

Learning is generally termed as a change in behavior. It is a process of obtaining knowledge and skills and attitudes (Dorgu, 2015). Author Balachandran (2015) identified that there are various learning styles and it is based on students' behavior, emotional, attitude and aptitude, contextual, and physiological factors. Moreover, external factors e.g., class environment, teachers' teaching styles, behaviors, content all play an important role in setting up a learning preference (Akareem & Hossain, 2016). Learning preferences are also based on individual differences. There are a variety of students in a class having a variety of background and prior knowledge, a variety of acquired and innate differences which lead to students' learning styles (Stirling & Alquraini, 2017).

Therefore, literature suggests the following learning styles which learners can prefer according to their choice and needs: Kolb learning style (Kolb & Kolb, 2013; Honey and Mumford learning style (Honey & Mumford, 1992); VARK model of learning style (Fleming & Mills, 1992); Felder and Silverman model of learning style (Felder & Silverman, 1988). On the basis of styles, learners can be activists, theorists, reflectors and pragmatists. However, certain challenges are also associated when students struggle to choose and opt for their preferred learning style. For example, students' aptitude and interests in the class. If students are unable to recognize their interests and aptitude, they can never learn effectively in class (Lee, 2017). If such students do not perform up to the mark, their relationship and interaction with the teacher will also become weaker. They will be hesitant to interact with their teachers and class and prefer to remain quiet in class. On the other hand, teachers' role is also crucial. If teachers do pay attention to students' learning style, it will affect students' learning (Hulme, & Allcock, 2010). They will lose interest in the class and their learning performance will also be affected. A competent teacher always identifies the learners' needs and plans his/her teaching strategies according to class interest. The alignment between teachers and students' learning styles could create a conducive learning environment in the class, which can also enhance students' performance and grades.

Research Objectives

The following objectives were designed to carry out this research:

- To explore the key challenges in relation to career choices of male and female students studying at higher education.
- To investigate the key challenges in relation to learning preferences of male and female students studying at higher education.

Research Methodology

Procedure

The main objective of this research was to investigate the key challenges to career selection with regard to learning preferences of students in higher education. A qualitative research methodology was adopted to carry out

this research. A purpose sampling technique was adopted to interview the study participants. An interview guide was developed to interview the students studying at Bahauddin Zakariya University. All the data were recorded and stored in view of analysis. Thematic analysis was performed to extract the study findings.

Population

The population of this research was based on one public university, Bahauddin Zakariya University, Multan. There are more than 600 teachers and 28000 students teaching/studying at various faculties/departments of Bahauddin Zakariya University, Multan (Bahauddin Zakariya University, 2022). The target population for this research is students of the faculty of Arts and Social Sciences and the Faculty of Sciences at Bahauddin Zakariya University Multan.

Sample

Considering the nature of this research, a purposive sampling technique was adopted to select the sample for this qualitative research. In total, 50 participants from both the above-mentioned faculties were invited for interviews. We invited only those students who were studying in the first semester as this is a stage where students make important decisions about their career in line with their learning preferences.

Instrument

To meet the study objectives, thorough literature was explored to design the research questions on students' career choices and learning preferences. Thus, we divided the interview questions in both parts to cover all the aspects of both variables. After an introductory question, we present the questions on learning styles and then career selection. In total, seven interview questions were presented to the research participants. The interview guide is attached in Appendix-A. The following are the sample questions: (a) What do you think you will be in the future after getting a degree in this subject? (b) Are your teachers' teaching styles matching with your learning style?

Data Collection

Researchers visited all the selected faculties/departments to seek permission from Deans/Heads to collect data from their students. Later,

consent was obtained from all the individual respondents after explaining the research objectives and interview protocols. Appointments were made with each individual participant to record the interview. The last author of this paper conducted the interviews with respondents. All face-to-face interviews were conducted with BS first semester students from various departments e.g., Education, Sociology, Economics, Fine Arts, Biology, Physics and Chemistry etc. The average age of each respondent was between 18-20 years. Each interview was recorded for analysis purposes. On average, each interview lasted between 15-20 minutes. We tried our best to comply with the research ethics.

Data Analysis

To achieve the study objectives, thematic analysis was best suited to analyzing interview data. Initially, all recorded data was transcribed verbatim. First, we studied the transcripts to get familiar with the interview responses. Secondly, a code book was developed to map out the occurrence of responses and each was labeled with a code. Later, similar codes were merged together and their frequencies were also noted down to present the results in numbers and percentages for a better representation of qualitative results. There were seven main themes which were designed based on each question and 22 sub-themes were finalized after merging the similar themes.

Next, patterns of code were labeled as themes. In the next stage, the themes were further refined to make it meaningful and comprehensive. Now, each theme is ready with its frequency of occurrences. In the subsequent section we will present each theme with the help of interview chunks. All the interview data were also segregated on a gender basis so that we can analyze the difference between the male and female students in relation to their learning preferences and career selection.

Results

In the following section we will present the results of thematic analysis. All the identified themes will be presented in relation to each interview question. All the themes will also highlight the gender differences as to setting learning preferences and making career selections. All the themes will be enriched with interview fragments.

Interest and motivation to choose a field of study

After their general introduction, we presented the specific question to know about their interest and motivation in their disciplines. A large number of codes 145 were identified in relation to this question and later formulated in the shape of three following key themes. These codes merge into three key themes: (a) Usually inspired by others while choosing a particular discipline. The majority of the respondents claimed that they usually get inspired by other people around them while choosing a particular field for their studies. As to measuring gender differences, the majority of female students get inspired by others in contrast to their counterparts. As to the next theme, (b) parents influence their children's choices. Few students share that their parents force them to choose a particular field, e.g., medical and engineering, which is sometimes not possible due to acquired grades and may be due to interest. Interview analysis shows that generally, parents of female students influence their choices as compared to male students. As to the next theme, (c) could not secure admission in their preferred disciplines, a few students said that they were unable to secure admission in their preferred discipline due to high merit. The following interview chunks supported these claims:

A respondent said: "One of my mathematics teachers inspired me a lot, so I decided to continue with mathematics." (RP, 09). *Another respondent stated:* "I wanted to study Psychology, but my father pushed me to study this subject." (RP-04). *Another explained:* "I want to go in medical field but I could not get admission due to high merit. Thus, I chose Chemistry and I will continue my studies in this subject. I took this as a challenge." (RP-01)

Support and guidance in choosing a preferred field

Respondents were asked if they received support and guidance from parents and others in choosing their preferred field of study. We have identified a good number (89) of codes related to this question. Two key themes were identified based on these codes. Moreover, it was found that female students receive more support than male students. (a) Received support and guidance, the majority of students acknowledge the support and guidance of their family members, teachers, parents, and seniors. (b)

Not received proper guidance and support, there were some respondents who reported reversed, they have not received sufficient or no support from their family and teachers. The following interview responses highlighted this:

A participant shared: “My teachers supported and guided me a lot about all aspects of this discipline.” (RP-03). *An interviewee said:* “My teacher supports me quite a lot and suggested two options either literature and the law. So, I choose literature (RP-16).” *A respondent replied:* “There is no proper guidance and counseling in subject selection, one of my friends told me about this subject and I took admission. I am not sure about the future of this subject.” (RP-11)

Challenges in selecting the field of study

As expected, students reported a number of challenges while choosing their disciplines according to their interests. Based on interview responses, 95 codes were identified in view of this interview question. We reach to the following themes after merging the similar themes. (a) Financial constraints in selecting a discipline, this is the most dominant theme that occurred in interview responses. The majority of the respondents mentioned this as a great challenge in making their dreams true and selecting their preferred field of study. In contrast to this, (b) Respondents did not face any challenges while choosing their subjects. A few respondents also revealed that they have not faced any challenges while taking admission into their preferred learning fields. Again, it is observed that female students face more challenges than male students in choosing their preferred field of study. The following interview fragments present this narrative:

“Mainly, I had some financial issues, but I tried applying for scholarships, now I am comfortable after winning a scholarship.” (RP-12). *One of the respondents explained:* “Higher education is very expensive nowadays; this is one of the major challenges in pursuing higher studies.” *A participant shared:* “I did not face any challenge for choosing this subject.” (RP-03)

Learning preferences

Respondents were also asked to share their preferred learning styles and how their learning style matches with teachers' teaching style. They were also asked to share the challenges that you face during lectures when it is not of your interest. During the analysis, many learning styles included activity-based learning, practical learning, self-study, discussion etc. The following related chunks were explored after analysis: the preferred learning styles of respondents were self-study and discussion. The majority of students highlighted that they prefer to learn by themselves when out of class and in class they like to discuss the assigned topics with their peers. The results also showed that female students preferred self-study and discussion as compared to their counterparts. The following interview fragments support these results:

"I usually prefer to study independently. It helped to clarify the concepts. I also draw my concepts for concrete learning." (RP-03). *Another reported:* "I prefer to listen and note down the lectures that helps to prepare for exam." (RP-13). *A respondent explained:* "I generally want to discuss with my fellows and friends. I like when teachers asked us to discuss in groups that help to develop understanding." (RP-25)

Alignment of teachers' teaching style with students learning styles

As to identifying the challenges in learning styles of students, the majority of the students reported that the teaching style of teacher does not match with their learning styles. This claim is mainly highlighted by female students. Male students experience this to a lesser extent. A few male students claimed that their learning style matches with their teachers' teaching style. The following interview quotes were extracted from the interview data: "Sometimes, teaching style of teachers matches with my style however some of the teachers just want us to read their given notes (RP-31)." *Another participant explained:* "Often, my learning style aligned with my teacher's style, it is always very helpful to understand the concepts." (RP-10)

Pressure for good performance

This is the next most occurring theme in the data analysis. Students feel pressure from their family members and teacher to perform in their studies. Quite a good number of code 95 were identified against this question. Majority of the students reported that their families do support them for studies and generally they do not put any pressure on them for good performance. An equal number of respondents shared that their parents motivate them for studies and provide all kinds of facilitation in their studies. A very few participants reported that they receive no support from their family and they do not motivate them in their studies. The following interview chunks highlighted these claims:

A respondent said: “My family is always there to support me that help to do well in my studies.” (RP-06). *An interviewee commented:* “My family respects my decision and always supports me. I do not have any pressure of performance from them.” (RP-12). *An interviewee commented:* “My father is very concerned about my results, he always expects highest grades from me, this is quite a pressure.” (RP-09). *A respondent replied:* “There is a lot of competition in the family with siblings and cousins to achieve high grades, thus, sometime it is very irritating.” (RP-08)

Teachers should motivate students

The majority of the respondents highlighted the need for motivation and interaction with students. They feel that their teachers do not motivate them sufficiently, they hardly appreciate their efforts and do not encourage interaction and participation in lectures. Most of the female students highlighted this need compared to male students. The following interview fragments present this claim: “Usually, our teachers focusing on delivering of lectures, they do not encourage us to participate, a kind of one-way teaching. Teachers should interact us and motivate us to get involve in lecture.” (RP-10). *One more respondent said:* “Teachers should teach their students according to their level of interest and knowledge. They should appreciate their students for class participation.” (RP-34)

Lack of advance teaching methods

This challenge was highlighted by many students and mainly female students complain about this. Their teachers do not have up-to-date knowledge and they are not aware of modern teaching methods. Respondents think that this is a great challenge in their study fields that their teachers are not aware of advancements in the fields. A few male students also highlighted this challenge. The following interview pieces are evidence of this claim.

A respondent said: “Teachers should be well trained in his/her field and have advance knowledge and skills to meet the students’ expectations to add in students’ knowledge and skills.” (RP-21). *Another respondent revealed:* “Many teachers come in class without preparation and they do not have sufficient knowledge about their fields. This is a major challenge in our grooming.” (RP-39)

Lack of practical

Many respondents highlighted this theme and consider it a big challenge in modern learning styles. They complain that their teachers do not give them practical exposure to the field, they mainly rely on lectures. There should be sufficient practice of the concepts in labs and fields so that we can apply our knowledge and concepts. Again, most of the female respondents highlighted this claim in contrast to male students.

The following interview responses identified this need: “What I lack in my class, our teachers should give real life examples and give exposure to the field and labs to experience the knowledge.” (RP-07). *Another respondent said:* “Teachers should give some practical examples about the topic to create our interest in the class otherwise it is very boring to sit for hours in lectures.” (RP-31)

Discussion & Conclusion

The study aimed to investigate the challenges of students in career choices and learning preferences in higher education. The qualitative study findings revealed a number of key challenges both related to career choices and learning preferences, which are completely in line with the available studies conducted in various educational contexts. As to career choices,

parents and teachers influence children's career choices, which is in line with the study results of Faitar and Faitar (2013) who concluded in their study that teachers and parents affect students' choices in making career decisions. The study findings of Abbasi and Sarwat (2014) conducted their research in a Pakistani context and achieved similar results.

Moreover, the study results of Arikpo and Domike (2015) also corroborate with our study results in view of making career choices and setting a learning preference. Bhattacharya (2013) conducted his study to measure the same variables with engineering students and concluded the same findings that parents and teachers' play an important role in career selection of students. The study results of Donald, Ashleigh and Baruch (2018) concluded that the job market has an important impact on making the right career decision, it actually determines the right career path for students, which is also aligned with our study findings.

As to learning preferences, the study results of Tulbure (2012) concluded that if students' learning styles match with instructional styles, it can produce better results, which is also according to our study findings. As to identifying the difference in career choices and learning preference of students, the study results of Bhalli, Khan, and Sattar (2015) found that these choices are different on a gender basis.

Limitations & Recommendations

This study aimed to investigate the career choices and learning preferences of students in higher education. However, the study stretched to the maximum, considering the qualitative approach. However, there are limitations which can be addressed in future studies. First, we focused on two variables; career choices and learning preferences. It is realized that most of the participants discussed their level of motivation in the case of both variables, future research can focus on considering the level of motivation in relation to these variables. A quantitative approach can also be adopted to see the clear relationship among these variables. Opting qualitative and quantitative research methodologies will help to apply in-depth data analysis as well. As for sample, teachers and parents can also be involved to know their opinion about the selection of the right field of study for their children and the learning style of students can be better learnt from their teachers.

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A Study of Evolved Gender Differences in Mate Selection Preferences among Students and their Parents

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Abstract

The current study was about identifying generation gap in preferences of students and their parents while looking for proposals. Quantitative method was used by collecting data through self-constructed checklist for mate selection preferences. The sample was comprised of 240 participants with convenient sampling technique. The findings revealed gender differences in preferences and generation gap is existing regardless of family and social pressures, that was clearly evidenced with respect to few indicators, i.e. ideal age of marriage, age gap with spouse, and type of productive marriage. The results explored numerous range of preferences made by boys and girls for their spouses or fathers and mothers for their son-in-law and daughter-in-law respectively. The results indicated that despite of modernization people still don't admire wife and daughter-in-law as a working woman although they surfaced their various physical and behavioral characteristics rather than professional. The study concluded that every gender has its preference for spouse selection. Also, generational gap was found to be linked with gender roles and socio-cultural dynamics of society.

Keywords: Mate Selection, Preferences, Generational Gap, Socio-Cultural Dynamics, Modernization.

Introduction

The phenomenon of human mate selection has been involved several factors that varies for every individual either male or female. When anybody has to choose a life partner, they must have been showing different choices and preferences according to their needs and expectation so they would be enjoying their whole life peacefully. Family characteristics have been followed more logically which imposed obligations on every individual, despite of existing need of financial support a family member are less attractive toward potential mates whose parents are both not alive in Japan (MHLW, 2013)

Marriage has been defined as a contractual bound which assimilate male and female with their mutual consent. Worldwide, arrange marriage has been considered royal or noble and mostly practicing in middle and Southeast Asian countries. Every individual keeps looking various characteristics either physical or social attributes while choosing for a life partner, males most likely to desire slim or modal figure on the other hand some males go for a chubby wife. Likewise, females also have their priorities while choosing a life partner, some like to have either tall heightened or muscular body counterpart. Furthermore, in western societies individuals are independent is choosing mate, whether marriage partner, dating partner or cohabiting partner. They don't face any interference by family and society, they have their own preferences and choices (Harris, 2006).

Schwartz (2013) argued that marriage and even mate selection has always been primarily linked to some crucial factors such as; ethnic background, socio-economic status, race, and religion. Worldwide, people have been attracted towards individual having same socialization, environment, attitudes, lifestyle, values and background regardless of their differences in ethnicity and interracial conflicts (Sterbova and Valentova, 2012).

In adult life, parents' involvement regarding partner selection is not a new phenomenon but nowadays friends' involvement while choosing a partner is a new and influential phenomenon (Harris, 2006). In reality, parental love and care has always been crucially important for surviving of their children, which can't even be disputed. Aside from the necessities of food/shelter, children have been benefited from the development of social skills and abilities which might be fostered by their parental inspiration as

well as accessible resources. Moreover, Parents are more concerned about their children's well-being. As a result, youngsters exhibit an interest in remembering their parents' choices and support (Buun, Park, & Duncan, 2010).

In every society, people preferred to choose their life partners on their own, which makes life easy and comfortable. A research conducted that showed that married people are healthier than unmarried people, especially mentally. Both men and women have different preferences while choosing their life partners. While in a few features they have similarities in choices. Both attracted for kind qualities and mature person. Men are more attracted to females' physical appearance. Women are more attracted to possession and prominence. The choices made by both men and women are not always different but varied according to their situation (Lindsey, 2011).

Objectives

The objectives of the study were as following:

1. To identify the gender differences in preferences for spouse selection.
2. To identify comparison between preferences of the old generation (parents) with the current generation (students/ children).

Literature Review

Every culture has different criteria when choosing a spouse. In western societies, people choose their partners by choice but in south Asian societies parents and relatives choose partners for their children. In many cultures, they are limited to marrying in a particular social class and caste system but in some areas, the person is restricted to choosing a person from the opposite social class. A study found that Parents have greater control over their daughters' mating decisions and sexual activity than they do over their boys. They have greater influence over their daughters than their boys since they are genetically linked to them and have more power. They make life decisions for their daughters, including picking an acceptable mate for their married life (David & Diana, 2008).

In research by Buun, Park & Duncan (2009) students and young people from various cultures were interviewed, and their replies were graded using a scale. The predicted outcome was that the Kurdish sample had a higher

level of parental control than the Dutch group. Samples from Canadian individuals with an Asian context and more exposure to conventional models revealed stronger parent influence in mate choice than those with a European background.

Another study by Perilous, Fleischman and Buss (2011) revealed that parents and children have Faith was valued more highly by parents than by children. Most of the individuals have higher importance for physical characteristics rather than their parents. Parents valued economic capacity and intellectual success higher in their daughters' friends than in their boys' friends. The responses of children, revealed a significant disparity in in regards to physical beauty and status among their peers.

The study carried out by Li, Valentine, and Patel (2010) that found the fact that men and women had been followed distinct spouse preferences for decades. Men appear to prioritize physical appearance in their long-term partner, whilst women appear to prioritize social position. Males and females both place higher importance on a variety of other characteristics. The study's sample size was 407 people, including 124 females and 83 males from the United States. These scholars come from a variety of backgrounds. There were 126 ladies and 74 men among the Singapore testers, who came from a variety of ethnic origins. They analyze spouse preferences in both the US and Singapore samples using a budget allocation technique. The findings show that not only do traditional sex differences exist but that male valued physical attributes more than women and women have been prioritized social standing as a key prerequisite in long-term relationships. The study also demonstrates that both sexes, male and female, consider physical appearance to be an important want in potential partners. The results confirm previous budget allocation findings.

A research found that the desire for fair women is a global bias that pervades many areas of people's relationships, notably in the selection of spouses. Furthermore, it was shown that due to the quick development in Internet networking and husband selection, this discriminatory attitude has had a significant impact on darker-skinned women. The findings revealed that males had a strong preference for partners who are more attractive than themselves. Men were shown to have a greater preference for fair skin in their prospective marriages than women. They use terms like gorgeous and appealing to describe their dream mate for this aim. Most notably, the

success tale marriage photographs always featured more attractive ladies than males. Women of color were almost absent from these marital success tales (Sonora and Mara, 2009)

Rational of the study

Every study in history revealed that choosing a partner for marriage has a great role. Everyone has different opinions and views, so they would like to have a partner according to social expectations. Various agents play an important role that includes Parents, peers, religion, society, educational background, financial capability, and personality characteristics. The current study tried to fill the gap by identifying gender differences in preferences of the old generation (parents) with the current generation (students/ children) with socio-cultural context of Punjab. Family system is too strong in Pakistan and parents are the most important agent in this matter, which definitely influence each other's decisions and liberalization has also been penetrated so far in our values and perception. So the present research tried to explore the transition in gender perception and decision making power in mate selection process.

Methodology

Research Design

The quantitative method design was used to explore the choices of men and women regarding their spouses across two different generation.

Sampling

Purposive sampling technique was used to collect data from 240 participants, student (60 males and 60 females) with age range 17- 27 years old from colleges and universities and 120 parents (60 fathers and 60 mothers) with age range 39-66 years old. The students were enrolled in intermediate, bachelors and master's program of different department from different universities of Lahore.

Tool for Data Collection and Analysis

In the present study, self-constructed checklist '*Spouse Preferences among Individuals and Parents Perspective Checklist*' was used to find the preferences of students for their life partners. The same checklist was also

shared with their parents to know preferences for son-in-law and daughter-in-law as well. The checklist had different questions enlisted for the spouse qualities. Individuals had to give five preferences to write from highly preferred to least preferred. For statistical analysis of data the SPSS was used by applying descriptive analysis for identification of frequencies and percentage.

Hypothesis

These hypotheses formulated were as following;

1. There is gender difference in preferable age of marriage by male and female.
2. There is gender difference in age gap preference for life partners by male, female, and their parents.
3. There is gender difference in permission to students by parents to choose their life partners.
4. There is gender difference in preference about which type of marriage is productive.
5. There is gender difference in preferences of characteristics for selecting a spouse.
6. There is gender difference in preferable age of marriage by parents.
7. There is gender difference in parents' response about elder in marriage.
8. There is gender difference in permission for choosing a life partner to parents at their time of marriage
9. There is gender difference in preference of parents that which type of marriage is productive at their time
10. There is a gender difference in preferences of parents for choosing their daughters-in-law.
11. There is a gender difference in preferences of parents for choosing their son-in-law.

Procedure

In the present study, the researcher went to different colleges and universities including, LCWU, GCU, KC, PU for data collection. The respondents were briefly told about purpose of the research and ensured that their information will be kept confidential. When the researcher gave

consent, the data was gathered and clustered in different domains and categorized as following. (Table 1)

Table 1

<i>Demographic variables</i>	<i>f</i>	<i>%</i>
Students		
M	60	50.0
F	60	50.0
Parents		
Mother	60	47.3
Father	60	37.3
Education of students		
Intermediate	40	33.3
Bachelors	40	33.3
Masters	40	33.3
Marital Status of parents		
Married	116	96.7
Divorce/Widow	4	3.3
Family Structure of students		
Joint	56	46.7
Nuclear	64	53.3
Income of parents		
10,000-30,000	18	15.0
40,000-70,000	66	55.3
80,000 and above	36	30.0

Results

Note. f = Frequency, % = Percentage

The above table is depiction of the demographical facts associated with respondents and their parents (Table 1).

Table 2

Gender Difference in Preferable age of marriage

<i>Ages</i>	<i>Girls (f)</i>	<i>%</i>	<i>Boys (f)</i>	<i>%</i>
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18	0	0	1	1.7
20	1	1.7	0	0
22	3	5.0	0	0
23	3	5.0	0	0
24	21	35.0	0	0
25	14	23.3	6	10.0
26	8	13.3	2	3.3
27	8	13.3	9	15.0
28	1	1.7	22	36.7
29	1	1.7	7	11.7
30	0	0	13	21.7

The above table depicted that most of the girls preferred 24 to 25 years of age is perfect for marriage. Mostly, boys prefer to get married at the age of 28 and 30. (Table 2)

Table 3

Gender differences in age gap preference of life partners.

<i>Age difference for spouse</i>	<i>Girls (f)</i>	<i>%</i>	<i>Boys (f)</i>	<i>%</i>
1	7	11.7	0	0
2	23	38.3	5	8.3
3	19	31.7	11	18.3
4	6	10.0	23	38.3
5	4	6.7	18	30.0
6	1	1.7	1	1.7
10	0	0	2	3.3

Above table showed that 2 and 3 years age gap was preferable by girls between their life partners. Boys preferred 4 and 5 years age difference between their life partners. Rarely prefer more age difference than that. (Table 3)

Table 4

Gender difference in Preference of who should be elder.

Elder	Girls (f)	%	Boys (f)	%
Respondents	4	6.7	55	91.7
Spouse	56	93.3	5	8.3

Table 4 indicated most of the girls preferred elder life partners for marriage. Most of the boys expected their life partners must be younger than them while rarely some boys expected elder life partners.

Table 5

Gender difference in permission to students by parents to choose their life partners

Permission	Girls (f)	%	Boys (f)	%
Yes	38	63.3	49	81.7
No	22	36.7	11	18.3

Above table indicated that girls had permission to choose their life partners. In many families girls didn't have even right or permission to about choosing their life partner. Boys of the 21st century got permission from their parents regarding choosing their life partners. (Table 5)

Table 6

Gender differences in preference about which type of marriage is productive

Opinion regarding marriage	Girls (f)	%	Boys (f)	%
Love marriage	12	20.0	19	31.7
Arrange marriage	8	13.3	15	25.0
Both	40	66.7	26	43.3

The above showed that most of the girls prefer both love and arrange marriages are productive than boys. Marriage is successful no matter it is love or arrange marriage. Most of the boys thought that arrange and love both marriages are productive in their ways. (Table 6)

Table 7

Gender differences in preferences of characteristics for life partners.

<i>Preferences</i>	<i>Girls (f)</i>		<i>%</i>	<i>Boys (f)</i>		<i>%</i>
Economically Stable	30	50.0	0	0		
Physical Appearance	14		23.3	25	41.7	
Educated	12		20.0	16	26.7	
Respectful	9		15.0	0		0
Honest	7	11.7	0	0		
Domestic	0		0	13		21.7
Soft Nature	0		0	14		23.3
Social	0		0	10		16.7
Strong personality	9		15.0	1		1.7
Capable of Everything	1		1.7	1		1.7
Loyal	4		6.7	1		1.7
Obedient	1		1.7	2		3.3
Religious	1		1.7	2		3.3
Same Caste	1		1.7	4		6.7
Broadminded	1		1.7	4		6.7
Compatible	2		3.3	4		6.7
Faithful	2		3.3	1		1.7
Liberal	1		1.7	1		1.7
Well behaved	2		3.3	1		1.7
Communicative	1		1.7	0		0
Fun loving	1		1.7	1		1.7
Generous	1		1.7	1		1.7
Jolly	1		1.7	1		1.7
Trustworthy	4		6.7	1		1.7
Understanding	4		6.7	1		1.7
Adjustable	2		3.3	1		1.7
Family background	1		1.7	1		1.7
Good cook	1		1.7	5		8.3
Sincere	2		3.3	1		1.7
Creative	2		3.3	1		1.7

Cooperative	2	3.3	1	1.7
Intellectual	4	6.7	1	1.7
Outspoken	2	3.3	1	1.7
Responsible	2	3.3	1	1.7
Sharp	1	1.7	1	1.7
Sophisticated	4	6.7	1	1.7
Well-mannered	0	0	1	1.7
Fun loving	0	0	3	5.0
Funny	0	0	1	1.7
Good listener	0	0	1	1.7

The above table 7 showed that students both girls and boys had varied preferences for their ideal life partner while looking for a marriage proposal.

Table 8

Gender differences in parents' response about who was elder in marriage

Elder	Father (n)	%	Mother (n)	%
Respondent	52	86.7	5	8.3
Spouse	8	13.3	55	91.7

The table 8 indicated that most of the fathers are elder than their life partners. Few of them have elder life partners and most of the women are younger than their life partners and very few of them are elder than their men's life partners.

Table 9

Gender differences in permission for choosing a life partner to parents at their time of marriage

Permission	Father (n)	%.	Mother (n)	%
Yes.	21	35.0.	19	31.7
No.	39	65.0.	41	68.3

Table 9 revealed that most of the fathers didn't have permission for choosing their life partners. In the past, women didn't have permission and right for choosing their partner. Only a few of them had permission while choosing a partner.

Table 10

Gender differences in preference of parents that which type of marriage is productive at their time

Marriage	Father (n)	%	Mother (n)	%
Love marriage	12	20.0	5	8.3
Arrange marriage	32	53.3	20	33.3
Both	16	26.7	35	58.3

Fathers preferred that arranged marriages are more productive than love marriages. Most of the mothers preferred that love and arrange marriages are productive in their way. (Table 10)

Table 11

Gender differences in preferences of parents for choosing their daughters-in-law.

Preferences	Father (f)	%	Mother(f)	%
Educated	44	73.3	12	20.0
Domestic	41	68.3	49	81.0
Physical Appearance	13	21.7	9	15.0
Soft Nature	11	18.3	0	0
Respectful	8	13.3	0	0
Understanding	0	0	23	38.3
Social	0	1.7	13	21.7
Noble	1	1.7	0	0
Cooperative	1	1.7	0	0
Experienced	1	1.7	0	0
Helper	1	1.7	0	0

Quiet	1	1.7	0	0
Religious	1	1.7	0	0
Strong personality	2	3.3	0	0
Active	2	3.3	0	0
Cooperative	1	1.7	0	0
Confident	1	1.7	0	0
Honest	4	6.7	0	0
Loyal	2	3.3	0	0
Obedient	2	3.3	0	0
Sincere	4	6.7	0	0
Same caste	1	1.7	0	0
Ethically good	2	3.3	0	0
Family oriented	1	1.7	0	0
Jolly	1	1.7	0	0
Obedient	2	3.3	0	0
Outgoing	1	1.7	1	1.7
Good cook	0	0	1	1.7
Submissive	0	0	1	1.7
Compromising	0	0	1	1.7
Sacrificing	0	0	1	1.7
Sincere	0	0	1	1.7
hardworking	0	0	1	1.7
well behaved	0	0	1	1.7

The results in table 11 revealed that most of the father wanted that here daughter in law should be educated while mother preferred for a daughter-in-law who has ability in managing in household affairs.

Table 12

Gender differences in preferences of parents for choosing their sons-in-law

Preferences	Mother (f)	%	Father (f)	%
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Educated	14	23.3	51	
85.0				
Economically Stable	53	88.3	46	
76.7				
Family Background	30	50.0	41	
68.3				
Same Caste	13	19.0	13	
19.0				
Strong Personality	12	20.0	15	
25.0				
Understanding	8	13.3	8	
13.3				
Hardworking	1	1.7	1	1.7
Soft nature	4	6.7	0	0
Honest	1	1.7	1	1.7
Physical appearance	4	6.7	0	0
Same caste	1	1.7	1	1.7
Sincere	1	1.7	1	1.7
Trustable	1	1.7	1	1.7
Well-mannered	1	1.7	1	1.7
Healthy	1	1.7	1	1.7
Honest	1	1.7	1	1.7
Loyal	4	6.7	0	0
Noble	2	3.3	0	0
Obedient	2	3.3	0	0
Physical Appearance	4	6.7	0	0
Religious	2	3.3	0	0
Respectful	1	1.7	1	1.7
Compromising	2	3.3	0	0
Funny	1	1.7	1	1.7
Less Demanding	1	1.7	1	1.7
Obedient	2	3.3	0	0
Outgoing	2	3.3	0	0
Respectful	2	3.3	0	0
Responsible	1	1.7	1	1.7
Sensible	1	1.7	1	1.7

Social	4	6.7	0	0
Helpful	1	1.7	1	1.7
Less aggressive	1	1.7	1	1.7
Loyal	4	6.7	0	0
Respect other	1	1.7	1	1.7

The above table 12 showed that both parents wanted to have their son-in-law educated, economically stable, family background and strong personality.

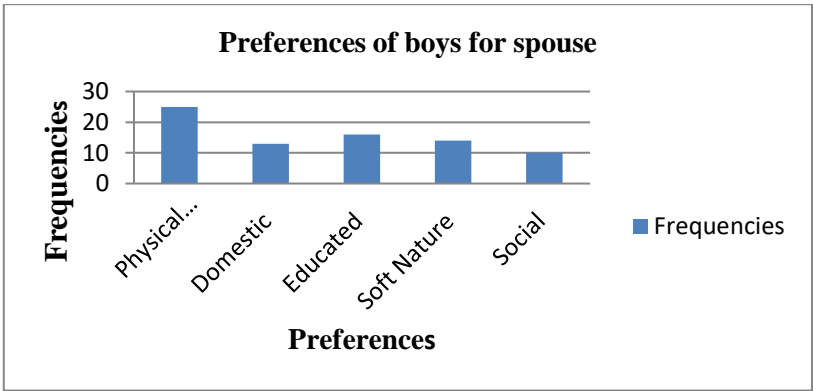


Figure 1 First five preferences made by boys for spouse

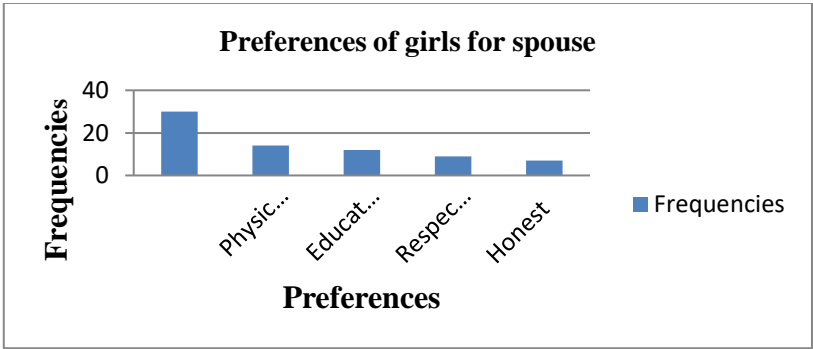


Figure 2 First five preferences made by girls for spouse

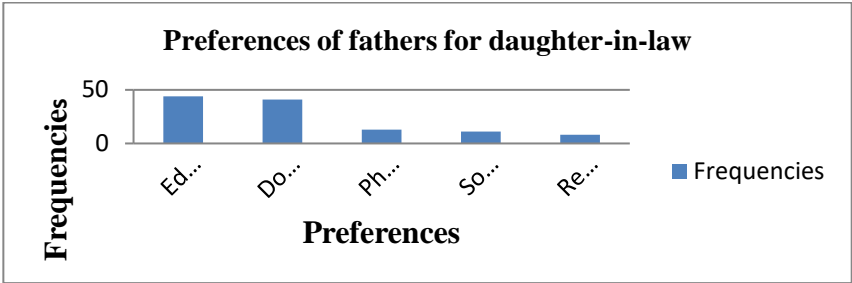


Figure 3 First five preferences made by fathers for choosing their daughter-in-laws

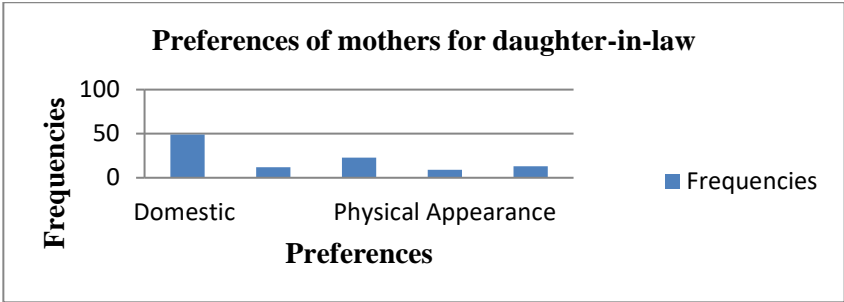


Figure 4 First five preferences made by mothers for choosing their daughter-in-laws

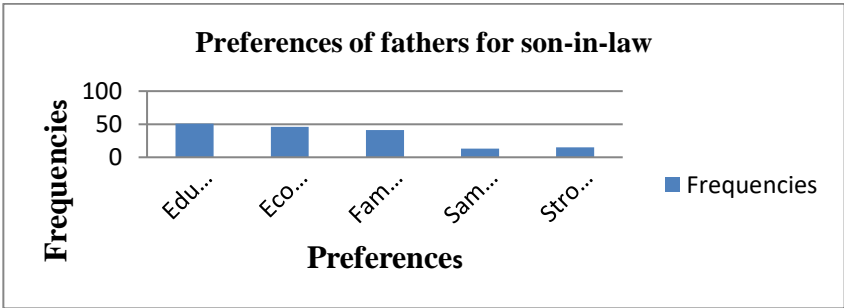


Figure 5 First five preferences made by fathers for choosing their son-in-laws

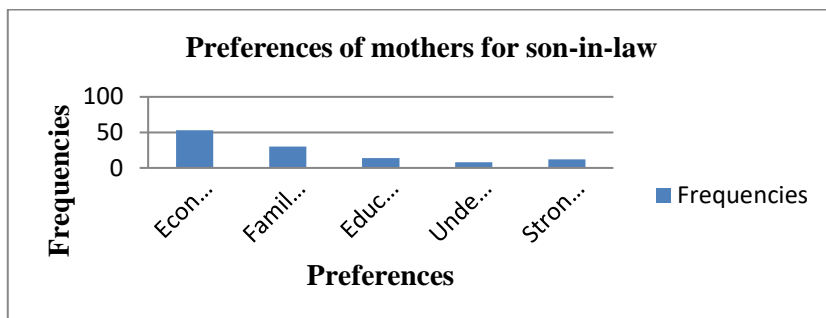


Figure 6 First five preferences made by mothers for choosing their son-in-laws

Discussion

The present study identified gender differences in preferences with respect to preferable demographics for ideal partner across different generation including students and their parents. Mostly boys preferred to marry young and beautiful women as they had standards for beauty, while women have been found to be more materialistic in preferences for spouse selection, they wanted to marry a man with solid resources, economic stability, and luxury lifestyle that would secure their future. With the passage of time, the advancement in technology gender differences in trends among individuals (boys and girls) and parents (mothers and fathers) for spouse selection have been evolved and somewhere still being persistent due to cultural expectation and mindset.

The present study identified some preferences that were enlisted by the participants in checklist which indicated the extent of preferences among males and females in spouse selection and regarding the selection of son-in-laws and daughter-in-laws by parents-in-law. The first hypothesis revealed that mostly girls preferred 24 to 25 years of age is ideal age for marriage than boys who were preferred to get married at the age of 28 and 30. That might be due to socially constructed expectation and societal pressure but when we look around people have been getting married according to their life circumstances regardless of social pressure.

The second hypothesis explored that mostly girls preferred 2 and 3 years age gap between them and their life partners. Boys preferred 4 and 5 years age difference with their life partners. Rarely preferred higher age

difference. That is also social expectation, although people are now getting married with a large age gap.

The third hypothesis found that all the boys wanted to be elder than their partner that is also due to patriarchal nature of society so they would be able to dominate and rule on their life partner and societal shame has also been associated with it if their partner will be elder than them. While girls also expected the same due to social mind set and practices. A study revealed that fathers occasionally promised their children that when the two children would reach age of agreement, they will consummate the engagement with the one they choose, and they tend to finish the relationship before marriage if they find the better option in Royal Rome (Corbier, 1991).

Fourth hypothesis indicated that the girls had permission to choose their life partners but in many families girls didn't have even right or permission to about choosing their life partner. Mostly boys of the 21st century got permission from their parents regarding choosing their life partners because boys are dominating and aggressive, they have more rights than girls. But trends have been changing gradually (Table 4). The in-depth interviews were conducted to explore dating, mate selection preferences and experiences of male and female belong to immigrant families. The results found that mostly immigrant parents had endogamy views and date experience of youngster was more likely inclined towards gender, birth order, and family. On the contrary, generally second generation preferred to have bicultural preference for partners (Nesteruk and Gramescu, 2012). Fifth hypothesis revealed that marriage can be successful either arranged or love, it all depends on our psychological and familial environment and relations that have been playing crucial role in this regard. But boys supported more for love marriage than girls. In the 21st century both boys and girls have become demanding due to excessive use of technology and social exposure, they know their rights and preferences for mate selection. In the present study sixth hypothesis explored the characteristics in demand by girls and boys for their life partner. The preferences, generated from the checklist were as following; Economically, Stable, Physical Appearance, Educated, Respectful, Honest, Domestic, Soft Nature, Social, Strong personality, Capable of Everything, Loyal, Obedient, Religious, Same, Caste, Broadminded, Compatible, Faithful, Liberal, Well behaved,

Communicative, Fun loving, Generous, Jolly, Trustworthy, Understanding, Adjustable, Family background, Good cook, Sincere, Creative, Cooperative, Intellectual, Outspoken, Responsible, Sharp, Sophisticated, Well-mannered, Funny, and Good listener.

Most of the boys demanded qualities for their spouse were shown in (Figure 1) i.e. physically beautiful, domestic, soft nature, educated and socially courteous wives. Mostly girls preferred to get married with a boysa having following characteristics i.e. financially strong, physically strong/ muscular, respectful, educated and honest as shown in (Figure 2). A study explored differences of mate selection among single adult by using national probability sample. Their preferences were identified by giving them 12 possible traits possess by a person. The results found that across different age groups and races, physical attractiveness and youthfulness were found to be important for men while for women .earning potential was found to be prioritized (Sprecher, Sullivan, & Hatfield, 1994).

Seventh hypothesis found the right to choose life partner by parents of the same students' in 20th century. Mostly older of the family member fixed their marriage while mostly father had permission to choose life partner. At that time people rely on their elders for their decisions.

Eight hypotheses found the perception of parents about productivity of type of marriage; both parents supported for arrange marriage because they look for proposal according to social standards. (Table 8) A study was carried out in china for identifying patterns of dating and mate selection, the results revealed that despite of modernization and economic change, young women preferred for a dating partner with the materialistic qualities of a man as compared to young men's preferences who had been focus more upon a women's physical appearance (Blair, 2021).

When the parents preference for being elder in marriage was explored in ninth hypothesis, it was revealed that mostly fathers were elder in age to their mother just 5 mothers were elder to their husbands. We are living in Pakistan where age is big factor causing hindrance in marriage for many girls in our society and it is socially constructed expectation that males should be elder than female while looking for a marriage proposal. So it was found that generation gap in ages is still persisted.

When parents right of choosing mate at their young age was analyzed, the tenth hypothesis revealed that 25-30 years ago, most of the fathers had right to choose life partners while scarcely mothers had choice or will in this regard. In contemporary world, females still couldn't have this right. In bagalkot, a study was conducted to explore trends and patterns in mate selection among student. The interviews were conducted from 762 respondents. The findings revealed that for marriage the caste with parents' consent and traditional rituals, matching of horoscope was favored while dowry was considered evil tradition. Male respondents preferred to get married with younger female, on the other hand females prefer near their own age or older 2-3 years of age (SJ, 2013).

When eleventh hypothesis explored the opinion of parents according to their life experiences about marriage type which could be productive, mostly fathers were of the opinions that arrange marriage is successful as compare to love marriage. On the other hand mothers also supported the same for arrange marriage but mostly mothers showed their agreeableness for both type of marriages.

When twelfth hypothesis was analyzed to find gender differences in preferences of parents for choosing their daughters-in-law, following preferences were identified from checklist i.e. Educated, Domestic, Physical Appearance, Soft Nature, Respectful, Understanding, Social, Noble, Cooperative, Experienced, Helper, Quiet, Religious, Strong personality, Active, Cooperative, Confident, Honest, Loyal, Obedient, Sincere, Same caste, Ethically good, Family oriented , Jolly, Obedient, Outgoing, Good cook, Submissive, Compromising, Sacrificing, Sincere, Hardworking, and Well behaved.

The results revealed that mostly fathers expected their daughter-in-law should be educated, physically beautiful, soft nature, educated and respectful as shown in (Figure 3). While mothers preferred for more educated, domestic, understanding, beautiful, and social nature for daughter-in-law, which might be proved the traditional or stereotypical expectation based on socially constructed roles and duties expected by society (Figure 4). The finding of a study revealed implication of society is based on model of traditional perspectives for mate preferences, which assumed that the opposite-sex parent has greater influence on adult preferences and ethological models assumed that parent's sex might not be

the indicator to influence on mate preferences (Heffernan, Chong, & Fraley, 2019).

When gender differences in preferences of parents for choosing their son-in-law were identified following codes were generated from the checklist i.e. Educated, Economically Stable, Family Background, Physical Appearance, Soft Nature, Respectful, Understanding, Social, Noble, Helper, Religious, Strong personality, Honest, Loyal, Same caste, Obedient, Compromising, Sincere, Hardworking, Trustable, well mannered, Healthy, Funny, Less demanding, outgoing, Respectful, Responsible, Sensible, Less aggressive, and Respect others.

Most of the fathers preferred for educated, family background, same caste, strong personality, and economic stability in their son-in-law, as shown in (Figure 5). A research identified single adult preferences for their future partners' family configurations by using online dating records from a matchmaking agency in Japan. The result found that partners' family characteristics stem from social stereotypical family traits that were based to avoid large families (Yu, & Hertog, 2018).

On the other hand, when the preferences of mother for choosing their sons-in-law were identified, the most frequent answers were well educated, good family background, strong personality, understanding, and economically stable as shown in (Figure 6). The research by Sepehri and Bagherian (2013) found that mothers of girls prefer highly qualified, handsome salaries and attractive kind of son-in-law for their daughters. The findings made the present study significant as it depicted the socio-cultural patterns for choosing mate by all the participants i.e. boys, girls, mothers and fathers.

Conclusion

The research gave us a view that how a person chooses a spouse with their parent's perspective that couldn't be changed over the time. The study focused on two generations' perceived preferences of qualities for choosing their partners. The study was also compared with the literature of older studies to provide the best knowledge about spouse selection in Lahore.

According to the current study most frequently, boys preferred physically attractive, educated, domestic women who would manage the home, children, and their parents. On the other hand, women preferred

financially strong, educated, elder, mature, and practical. The study also explored the generation gap in decision making and freedom to choose life partners with respect to few indicators such as ideal age of marriage, age gap with spouse, and type of productive marriage. Gender differences were found to be clearly evident across generations.

The findings revealed sorts of qualities that might be looking while selection of daughter-in-law and son-in-law. Usually parents preferred that their daughter-in-law should have quality to handle domestic chores and educated. Most of the parents preferred to have son-in-law belong to good family background and have solid resources so that their daughters would have a good future with all the facilities of life. The current study also explained that parent's plays a significant role in the process of spouse selection and favor them if child wants to get married to a spouse who will be acceptable by their parents and society. It was identified from the analysis that parents' acceptance of choosing a partner would be the top priority for marriage. The present study came into limelight that people are inspired by professional women but they still don't prefer working female while looking for a proposal regardless of education. That socially constructed mind set for gender roles has been prevailing in Pakistan.

Furthermore, every society has been undergone through considerable transition of modernization and economic status; young people still have the same basic goal as previous generations to find an intimate partner and eventually a spouse. A contemporary pattern of mate selection has been practicing within the same context of traditional gender role, ideologies and considerations by various families in Pakistan.

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Effects of Internet on Psychogenic and Emotional Wellbeing of Prospective Teachers

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Abstract

The current study intended to explore the effects of internet on psychogenic and emotional wellbeing of prospective teachers. The researchers prepared the objectives and research questions to explore the effects of internet on psychogenic and emotional wellbeing of prospective teachers. This research was quantitative and descriptive in nature. The population of the study comprised of nineteen hundred and fifty-seven students at the University of Education, Lahore. The sample consisted of 1000 prospective teachers from 9 different departments. The sampling technique was random sampling. The questionnaire was adopted by the researchers for the purpose of collecting data. Questionnaire comprised of 25 questions. After collection of data each question was given a code. After coding data were entered into statistical package for social sciences (SPSS) version 15.0. Frequencies and percentages of items were calculated to find out prospective teacher's responses towards each statement. Chi-square test was used to explore comparison between items and demographic variables (gender, age, department, degree, program, shift and semester).

Keywords: Internet effects, Internet websites, students' health, Internet addiction, Therapeutic strategies

Introduction

Today, the Internet is a powerful source used to connect people all over the world. It is a source used for a quickest possible handing over of information. Ever since, Internet's establishment, its spread and popularity is on the rise (Internet World Stats, 2015). The benefits associated with Internet use, include: widest and quickest access to information, interpersonal communication through email and being connected to the entire world. However, despite its own merits, the risks associated with Internet unlimited-use are undeniable. The widespread of the Internet among youth is alarming (Chou, 2019).

Today, life without the Internet is inconceivable, which has its due toll on youth's psychogenic health and emotional development. In Europe alone 80% of the population is Internet dependent, (Internet World Stats, 2015). The Internet usage has become a necessity of every household across the globe.

There is an ongoing debate about the appropriateness of applying the concept of addiction to Internet use. So, Internet is being integrated as part of our every day's life because the usage of internet has been growing explosively worldwide. Homes, schools, colleges, libraries and internet cafes are the places which are more accessible to internet nowadays. Completing schoolwork, playing online games, reading and writing emails and engaging in real time chatting are the common online activities

Based on studies, internet usage has become popular worldwide, but is not without its negative impact on society at large. The cyber community is ever increasing; it has influenced our day to day life (Young, 2006). According to Widyanto (2004) the Internet dependent people exhibit low tolerance and signs of withdrawal. Such behavior is associated with the users of gadgets (McMurran, 2004). Internet's negative impact on youth is reportedly associated with depression and psychogenic disorder. The study describes those prospective teachers with internet dependence had poor outcome for mental wellbeing (Widyanto, 2004).

Statement of the Problem

Due to the Internet usage, people across the world find it much inexpensive and easier to connect with one another. Even though internet facilitates individuals' learning process. In Pakistan, the youth and prospective teachers are among the most frequent internet users, and available evidence

suggests that their Internet dependence may affect their psychogenic and emotional wellbeing. Certain web-based content could be distressing for the students. The current study assessed internet effects on psychogenic and emotional wellbeing of the prospective teachers.

Objectives of the study

1. To measure the effects of unlimited use of internet on psychogenic and emotional wellbeing of prospective teachers.
2. To find out the difference in psychogenic and emotional wellbeing of prospective teachers with respect to different demographic variables (gender, age, department, degree program, semester, and shift).

Research Questions

1. To what extent the excessive use of internet affects the psychogenic and emotional wellbeing of prospective teachers?
2. To what extent internet affects differently the psychogenic and emotional wellbeing of prospective teachers with respect to different demographic variables (gender, age, department, degree program, semester, and shift).

Significance of Study

Internet is an efficient linking device that allows information transfer. This study may be helpful for educationists, academic researchers, medical experts, and psychologists. This study may be helpful to increase the understanding of the reader about the phenomenon of internet. For the educationists and academic researchers, the study may help them as how the internet is utilized by prospective teachers. This study focuses on the access and use of internet among prospective teachers. For medical experts and psychologists, this study may be helpful for the treatment of addicts, caused by internet addiction. For parents, it may help to check the result of internet on psychogenic and emotional wellbeing of children.

Review of the Literature

The internet is a global system, interconnecting computers. It is a network that consists of tens of thousands of public and private business, academics, and official networks, (Oskouei, 2010). The Internet is beneficial to both students and teachers if they use it as a way and means of knowledge

creation and dissemination. By using this facility, one can share information with other people around the world. It ensures access to latest news of the world. Also, it is a good way to find different types of jobs. It provides the facility to get online education. Teachers share similar concerns about the effects of Internet use on the mental abilities of students growing up with an unlimited access to Internet use. Prospective teachers can easily be distracted. The content available on different websites is not appropriate for youth of different age groups.

Researches argue that a new psychogenic disorder is found among youth and explains their problematic behaviors (associated with Internet), such as: mood swings, loneliness, timidity, poor time management, and anxiety. Adults and teenagers who spend a considerable time online also are known to experience frequently physical problems such as: frequent headaches, loss of focus, and lack of muscle-mobilizing activities (Martin & Schumacher, 2003).

Some studies show that having Internet access increases life satisfaction levels (Chou & Hsiao, 2000; Martin & Schumacher, 2003). In contrast, some researches indicate that Internet dependent people are less happy as compared to those who get indulged in physical activities.

Internet addiction is a wide term that covers a range of impulse-control problems and behaviors involving the internet (Oskoue, 2010).

Therapy employed for internet addicts who have lost their family bonding and social interactions would undergo a behavioral restructuring ;behavioral exercises, and exposure therapy in which the offline time of the individuals is enhanced by engaging them in more productive socio-physical activities (Sharma & Palanichami, 2018) .

Methodology

The present research is quantitative descriptive survey research. Quantitative Research is explaining a phenomenon by collecting numerical data that are analyzed using mathematically based methods, in particular statistic, (Aliaga & Gunderon, 2002). The current research was quantitative in nature because data from prospective teachers were obtained in form of numbers and analyzed it with statistical procedures to find whether predictive generalization of theory was true. In this study data was analyzed quantitatively using frequencies.

Population

The population of the study considered 1957 prospective teachers of University of Education. In order to conduct research on perception of prospective teachers regarding the effect of internet on their mental and emotional health, 9 departments were included in the study.

Sample

Sampling technique was stratified random sampling. According to Gay (1996), if the population size was greater than 1000, then the sample must be drawn about 30% which in current case was 587. But to be on the safe side 1000 sample size was drawn.

Data Collection

The researcher collected online data to access the perception of prospective teachers regarding the effect of internet on their psychogenic and emotional wellbeing. A link of the questionnaire was shared to students of all departments through email and requested to fill the questionnaire properly with patience and care.

Data Analysis and Findings of the Study

On completion of data collection, each questionnaire was given a code. After coding, data were entered into the SPSS version 15.0. Data were analyzed used the analytical techniques of descriptive statistic. Data were analyzed in the form of frequencies and percentage to find out the perception of prospective teachers regarding the effect of internet on their mental and emotional health. Chi-Square test was used to find difference in opinion of prospective teachers on the basis of demographic variables; gender, age, department, degree program, shift, and semester.

Research Question 1

Frequency and percentage of prospective teacher's responses on statement 1,2, and 3 about liking online games and internet

Table 1.1

Statements	No		Sometimes		Mostly		Yes	
	Freq.	%age	Freq.	%age	Freq.	%age	Freq.	%age
Do you like online games?	208	20.8	96	9.6	163	16.3	533	53.3
Do you use internet?	22	2.2	16	1.6	240	24.0	722	72.2
Do you use internet at home?	30	3.0	12	1.2	288	28.8	670	67.0

Table 1.1 shows frequencies and percentages of perception of prospective teachers about liking of online games and usage of internet. It is clear from the table that half of the prospective teachers (53.3%) like online games and one-third of the prospective teachers (20.8%) do not like online games. Majority of the prospective teachers (72.2%) like to use internet and very few of them (2.2%) do not use internet. Then (67%) of the prospective teachers, use internet at home and few (3%) of them do not use internet at home.

Table 1.2

Frequency and percentage of prospective teacher's responses on statement 4,5, and 6 about use of internet

Statements	No		Sometimes		Mostly		Yes	
	Freq.	%age	Freq.	%age	Freq.	%age	Freq.	%age
Is internet the main way of Communication with your offline friends?	229	22.9	62	6.2	267	26.7	442	44.2
Do you use internet to Share videos?	246	24.6	116	11.6	228	22.8	410	41.0
Do you make unknown friends on internet?	484	48.4	126	12.6	171	17.1	219	21.9

Table 1.2 is a representation about the use of internet. It is clear that, nearly half of the prospective teachers (44.2%) internet is the main way of communication with their offline friends and (22.9%) said that internet is not main way of communication. Still nearly half (41.0%) of the prospective teachers use internet to share videos and (24.6%) respondents responded that they do not use internet to share videos. (48.4%) respondents responded that they do not make unknown friends on internet.

Table 1.3

Frequency and percentage of prospective teacher's responses on statement 7,8, 9, and 10 about applications of internet

Statements	No		Sometimes		Mostly		Yes	
	Freq.	%age	Freq.	%age	Freq.	%age	Freq.	%age
Is internet helpful in getting information of health and nutrition?	64	6.4	102	10.2	223	22.3	611	61.1
Is internet helpful in your studies?	37	3.7	28	2.8	291	29.1	644	64.4
Is internet helpful in your research work?	34	3.4	23	2.3	293	29.3	650	65.0
Is internet helpful for understanding and getting knowledge?	43	4.3	31	3.1	282	28.2	644	64.4

Table 1.3 shows the application of internet. It is clear from the table that more than half of the prospective teachers (61.1%) responded that internet is helpful in getting information about health and nutrition. And (6.4%) respondents responded that internet is not helpful in getting information about health and nutrition. More than half of the prospective teachers (64.4%) responded internet is helpful in studies and (3.7%) prospective teachers responded that internet is not helpful in their studies. (65%) prospective teachers answered that internet is helpful in their research work. And (64.4%) prospective teachers answered that internet is helpful for understanding and getting knowledge while, (4.3%) respondents responded that internet is not helpful for understanding and getting knowledge.

Table 1.4

Frequency and percentage of prospective teacher's responses on statement 11, 12, and 13 about time usage on internet

Statements	No		Sometimes		Mostly		Yes	
	Freq.	%age	Freq.	%age	Freq.	%age	Freq.	%age
On average, do you spend time on internet more than 2 hours daily?	79	7.9	53	5.3	294	29.4	574	57.4
Is your time spent online longer than you originally planned?	190	19.0	98	9.8	285	28.5	427	42.7
Do you spend most of your time on online chatting?	329	32.9	103	10.3	266	26.6	302	30.2

Table 1.4 shows that more than half of the prospective teachers (57.4%), who participated said that their use of internet exceeded 2 hours. (7.9%) prospective teachers answered that their internet usage most of the time was not more than 2 hours per day. Regarding the time spent online longer than originally planned, (42.7%) prospective teachers replied in affirmative. (19%) prospective teachers said that they do not spend time online longer than they intended. (30.2%) prospective teachers time spent in online chatting. However (32.9%) prospective teachers do not time spent in online chatting.

Table 1.5

Frequency and percentage of prospective teacher's responses on statement 14, and 15 about effect of internet

Statements	No		Sometimes		Mostly		Yes	
	Freq.	%age	Freq.	%age	Freq.	%age	Freq.	%age

Does the use of internet decrease your participation in social activities like going parties/ religious gathering?	442	44.2	123	12.3	198	19.8	237	23.7
Do you feel depress when you stay online for long hours with friends?	405	40.5	99	9.9	255	25.5	241	24.1

Table 1.5 describes the effect of internet. Nearly half (44.2%) of the prospective teachers said that internet does not decrease their participation in social activities. However, (23.7%) prospective teachers responded that internet decrease their participation in social activities. (40.5%) of the prospective teachers do not feel depress when they online for long hours with friends. However (24.1%) responded that they feel depress when they stay online for long hours with friends.

Table 1.6

Frequency and percentage of prospective teacher's responses on statement 16,17, and 18 about effect of internet on mental and emotional health

Statements	No		Sometimes		Mostly		Yes	
	Freq.	%age	Freq.	%age	Freq.	%age	Freq.	%age
Does the use of internet decrease your any physical activity like exercise?	367	36.7	119	11.9	238	23.8	276	27.6
Do you become moody, restless, irritable or depressed when you stop or decrease your internet use?	257	25.7	115	11.5	257	25.7	371	37.1
Do you use internet instead of T.V watching?	248	24.8	156	15.6	266	26.6	330	33.0

Table 1.6 shows frequencies and percentages about effect of internet on emotional and mental health of prospective teachers. (36.7%) prospective teachers responded that use of internet does not affect their physical activities like exercise. And (27.6%) responded that the use of internet affects their physical activities like exercise. (37.1%) responded that they become moody, restless irritable or depressed when they stop or decrease their internet use, similarly (25.7%) participants responded that they do not become moody, restless irritable or depressed when they stop or decrease their internet use. (33%) responded that they prefer using internet over

watching T.V and (24.8%) responded that they do not use internet over watching T.V

Table 1.7

Frequency and percentage of prospective teacher's responses on statement 19,20, and 21 about excessive use of internet

Statements	No		Sometimes		Mostly		Yes	
	Freq.	%age	Freq.	%age	Freq.	%age	Freq.	%age
Do you use internet instead of talking on phones?	372	37.2	119	11.9	233	23.3	276	27.6
Do you use internet instead of sleeping?	379	37.9	174	17.4	229	22.9	218	21.8
Do you use internet instead of exercising?	379	37.9	139	13.9	235	23.5	247	24.7

Table 1.7 is a representation about the excessive use of internet. (37.2%) prospective teachers responded that they do not use internet instead of talking on phones and (27.6%) responded that they use internet instead of talking on phones. Similarly, (37.9%) respondents responded that they do not use internet instead of sleeping and (21.8%) responded that they use internet instead of sleeping. (37.9%) respondents responded that they do not use internet instead of exercising and (24.7%) responded that they use internet instead of exercising.

Table 1.8

Frequency and percentage of prospective teacher's responses on statement 22, 23, 24, and 25 about excessive use of internet

Statements	No		Sometimes		Mostly		Yes	
	Freq.	%age	Freq.	%age	Freq.	%age	Freq.	%age
Do you use internet instead of books, magazines, and newspaper?	334	33.4	158	15.8	231	23.1	277	27.7
Do you use internet instead of going to movie?	423	42.3	128	12.8	223	22.3	226	22.6
Do you use internet instead of going out/socializing?	459	45.9	151	15.1	219	21.9	171	17.1
Do you use internet instead of household work?	467	46.7	161	16.1	211	21.1	161	16.1

Table 1.8 shows the excessive use of internet. It is clear from the table that (33.4%) prospective teachers responded that they do not use internet instead of books, magazines, and newspaper and (27.7%) responded that they use internet instead of books, magazines, and newspaper. Nearly half of the prospective teachers (42.3%) do not use internet instead of going to movie and (22.6%) respondents responded that they use internet instead of

going to movie. Nearly half of the prospective teachers (45.9%) do not use internet instead of going out/socializing and (17.1%) prospective teachers use internet instead of going out/socializing. (46.7%) respondents responded that they do not use internet instead of household work and (16.1%) responded that they use internet instead of household work.

Research Question 2

Table 2.1

Chi square test for comparison between item 'Do you like online games?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	32.624	3	.000
2.	Age	40.669	21	.006
3.	Department	48.918	24	.002
4.	Degree Program	53.120	30	.006
5.	Semester	44.440	9	.000
6.	Shift	20.734	3	.000

Table 2.1 is a representation of the comparison between the liking of online games by prospective teachers and demographic information of prospective teachers. It is clear that χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in the liking of online games with respect to their age, gender, department, degree program, semester, and shift.

Table 2.2

Chi square test for comparison between item 'Do you use internet?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	13.792	3	.003
2.	Age	44.884	21	.002
3.	Department	47.816	24	.003
4.	Degree Program	54.589	30	.004
5.	Semester	15.718	9	.073
6.	Shift	15.109	3	.002

Table 2.2 is a representation of the comparison between the usage of internet by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, and shift) and do not differ on the basis of semester. So, it can be concluded that the prospective teachers differ in the liking of online games with respect to gender, age, department, degree program, and shift.

Table 2.3

Chi square test for comparison between item 'Do you use internet at home?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	11.344	3	.010
2.	Age	27.284	21	.162
3.	Department	20.473	24	.670
4.	Degree Program	29.663	30	.483
5.	Semester	25.239	9	.003
6.	Shift	17.220	3	.001

Table 2.3 is a representation of the comparison between the use of internet at home by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for demographic variables (gender, age, semester and shift) and do not significant on the basis of department and degree program. So, it can be concluded that the prospective teachers differ in use of internet at home with respect to gender, age, semester, and shift.

Table 2.4

Chi square test for comparison between item 'Is internet the main way of communication with your offline friends?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	9.491	3	.023
2.	Age	59.461	21	.000
3.	Department	74.606	24	.000
4.	Degree Program	79.837	30	.000
5.	Semester	14.875	9	.094
6.	Shift	14.321	3	.002

Table 2.4 is a representation of the comparison between the internet is the main way of communication by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, and shift) and do not significant on the basis of semester. So it can be concluded that the prospective teachers differ internet is the main way of communication with respect to gender, age, department, degree program, and shift.

Table 2.5

Chi square test for comparison between item 'Do you use internet to share videos?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
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1.	Gender	27.069	3	.000
2.	Age	75.675	21	.000
3.	Department	109.232	24	.000
4.	Degree Program	119.656	30	.000
5.	Semester	34.036	9	.000
6.	Shift	11.235	3	.011

Table 2.5 is a representation of the comparison between the use of internet to share videos by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p < 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in the use of internet to share videos with respect to gender, age, department, degree program, semester, and shift.

Table 2.6

Chi square test for comparison between item 'Do you make unknown friends on internet?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	20.728	3	.000
2.	Age	81.023	21	.000
3.	Department	39.200	24	.026
4.	Degree Program	59.891	30	.001
5.	Semester	21.987	9	.009
6.	Shift	19.757	3	.000

Table 2.6 is a representation of the comparison between the making unknown friends by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in making unknown friends on internet with respect to gender, age, department, degree program, semester, and shift.

Table 2.7

Chi square test for comparison between item 'Is internet helpful in getting information of health and nutrition?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	14.221	3	.003
2.	Age	49.283	21	.000
3.	Department	38.210	24	.033
4.	Degree Program	52.278	30	.007
5.	Semester	24.016	9	.004

6.	Shift	25.339	3	.000
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Table 2.7 is a representation of the comparison between internet is helpful in getting information of health and nutrition by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in getting information about health and nutrition with respect to gender, age, department, degree program, semester, and shift.

Table 2.8

Chi square test for comparison between item 'Is internet help in your studies?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	19.342	3	.000
2.	Age	37.670	21	.014
3.	Department	31.069	24	.152
4.	Degree Program	52.219	30	.007
5.	Semester	20.694	9	.014
6.	Shift	18.051	3	.000

Table 2.8 is a representation of the comparison between internet is helpful in studies by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ regarding internet is helpful in studies with respect to gender, age, department, degree program, semester, and shift.

Table 2.9

Chi square test for comparison between item 'Is internet help in your research work?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	a
1.	Gender	22.424	3	.000
2.	Age	40.123	21	.007
3.	Department	36.864	24	.045
4.	Degree Program	58.166	30	.002
5.	Semester	19.851	9	.019
6.	Shift	16.293	3	.001

Table 2.9 is a representation of the comparison between that internet is helpful in research work by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant

at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ regarding internet is helpful in research work with respect to gender, age, department, degree program, semester, and shift.

Table 2.10

Chi square test for comparison between item 'Is internet helpful for understanding and getting knowledge?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	15.589	3	.001
2.	Age	43.751	21	.003
3.	Department	28.159	24	.253
4.	Degree Program	42.492	30	.065
5.	Semester	12.727	9	.175
6.	Shift	16.118	3	.001

Table 2.10 is a representation of the comparison between the internet is helpful in getting information and knowledge by prospective teachers and demographic information of prospective teachers. It is clear that χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, semester, and shift) and do not significant on the basis of degree program. So, it can be concluded that the prospective teachers differ that internet is helpful in getting information and knowledge with respect to gender, age, department, semester, and shift.

Table 2.11

Chi square test for comparison between item 'On average, do you spend time on internet more than 2 hours daily?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	a
1.	Gender	20.564	3	.000
2.	Age	38.645	21	.011
3.	Department	32.351	24	.119
4.	Degree Program	56.748	30	.002
5.	Semester	15.354	9	.082
6.	Shift	22.419	3	.000

Table 2.11 is a representation of the comparison between the time spent on internet is more than 2 hours daily by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, and shift) and do not significant on the basis of semester. So, it can be concluded that the prospective teachers differ that

time spent on internet is more than 2 hours daily with respect to gender, age, department, degree program, and shift.

Table 2.12

Chi square test for comparison between item 'Is your time spent online longer than you originally planned?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	19.217	3	.000
2.	Age	18.956	21	.588
3.	Department	40.076	24	.021
4.	Degree Program	48.144	30	.019
5.	Semester	13.414	9	.145
6.	Shift	13.295	3	.004

Table 2.12 is a representation of the comparison between the time spent online longer than they planned by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in time spent online longer than they originally planned with respect to gender, age, department, degree program, semester, and shift.

Table 2.13

Chi square test for comparison between item 'Do you spend most of your time on online chatting?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	24.584	3	.000
2.	Age	33.214	21	.044
3.	Department	37.177	24	.042
4.	Degree Program	52.741	30	.006
5.	Semester	17.770	9	.038
6.	Shift	17.379	3	.001

Table 2.13 is a representation of the comparison between the time spent on chatting by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in time spent on chatting with respect to gender, age, department, degree program, semester, and shift.

Table 2.14

Chi square test for comparison between item 'Is the use of internet decrease your participation in social activities like going parties/ religious gathering?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	28.355	3	.000
2.	Age	45.930	21	.001
3.	Department	46.943	24	.003
4.	Degree Program	75.404	30	.000
5.	Semester	23.379	9	.005
6.	Shift	18.498	3	.000

Table 2.14 is a representation of the comparison between internet decreases any physical activities like religious gathering by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ regarding internet decreases any physical activities like religious gathering with respect to gender, age, department, degree program, semester, and shift.

Table 2.15

Chi square test for comparison between item 'Do you feel depress when you stay online for long hours with friends?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	24.746	3	.000
2.	Age	36.204	21	.021
3.	Department	43.255	24	.009
4.	Degree Program	57.754	30	.002
5.	Semester	24.790	9	.003
6.	Shift	20.152	3	.000

Table 2.15 is a representation of the comparison between feeling depress when you stay online for long hours with friends by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in feeling depress when they stay online for long hours with friends with respect to gender, age, department, degree program, semester, and shift.

Table 2.16

Chi square test for comparison between item 'Do the use of internet decreases your any physical activity like exercise?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	13.196	3	.004
2.	Age	59.433	21	.000
3.	Department	46.097	24	.004
4.	Degree Program	71.256	30	.000
5.	Semester	43.720	9	.000
6.	Shift	15.429	3	.001

Table 2.16 is a representation of the comparison between that the internet decreases any physical activity by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ regarding internet decreases any physical activity with respect to gender, age, department, degree program, semester, and shift.

Table 2.17

Chi square test for comparison between item 'Do you become moody, restless, irritable or depressed when you stop or decrease your internet use?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	18.017	3	.000
2.	Age	53.318	21	.000
3.	Department	73.649	24	.000
4.	Degree Program	96.768	30	.000
5.	Semester	29.348	9	.001
6.	Shift	18.774	3	.000

Table 2.17 is a representation of the comparison between when you stop using internet by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ when you stop using internet with respect to gender, age, department, degree program, semester, and shift.

Table 2.18

Chi square test for comparison between item 'Do you use internet instead of T.V watching?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
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1.	Gender	7.314	3	.063
2.	Age	40.717	21	.006
3.	Department	46.745	24	.004
4.	Degree Program	52.590	30	.007
5.	Semester	31.798	9	.000
6.	Shift	17.249	3	.001

Table 2.18 is a representation of the comparison between the internet is used instead of watching T.V by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (age, department, degree program, semester and shift) and do not significant on the basis of gender. So, it can be concluded that the prospective teachers differ that internet is used instead of watching T.V with respect to age, department, degree program, semester, and shift.

Table 2.19

Chi square test for comparison between item 'Do you use internet instead of talking on phones?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	7.931	3	.047
2.	Age	63.389	21	.000
3.	Department	52.756	24	.001
4.	Degree Program	74.290	30	.000
5.	Semester	33.360	9	.000
6.	Shift	20.319	3	.000

Table 2.19 is a representation of the comparison between the use of internet instead of talking on phones by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in the use of internet instead of talking on phones with respect to gender, age, department, degree program, semester, and shift.

Table 2.20

Chi square test for comparison between item 'Do you use internet instead of sleeping?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	13.177	3	.004
2.	Age	29.609	21	.100
3.	Department	34.792	24	.072
4.	Degree Program	46.798	30	.026
5.	Semester	6.189	9	.721

6.	Shift	27.960	3	.000
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Table 2.20 is a representation of the comparison between the internet is used instead of sleeping by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, and shift) and do not significant on the basis of semester. So, it can be concluded that the prospective teachers differ that internet is used instead of sleeping with respect to gender, age, department, degree program, semester, and shift.

Table 2.21

Chi square test for comparison between item 'Do you use internet instead of exercising?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	22.456	3	.000
2.	Age	54.124	21	.000
3.	Department	43.830	24	.008
4.	Degree Program	63.341	30	.000
5.	Semester	18.177	9	.033
6.	Shift	16.193	3	.001

Table 2.21 is a representation of the comparison between the use of internet instead of exercising by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in the use of internet instead of exercising with respect to gender, age, department, degree program, semester, and shift.

Table 2.22

Chi square test for comparison between item 'Do you use internet instead of books, magazines and newspaper?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	8.997	3	.029
2.	Age	48.995	21	.001
3.	Department	51.246	24	.001
4.	Degree Program	69.081	30	.000
5.	Semester	33.175	9	.000
6.	Shift	21.586	3	.000

Table 2.22 is a representation of the comparison between the use of internet instead of books, magazines and newspaper by prospective teachers and

demographic information of prospective teachers. It is clear that χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in the use of internet instead of books, magazines and newspaper with respect to gender, age, department, degree program, semester, and shift.

Table 2.23

Chi square test for comparison between item 'Do you use internet instead of going to movie?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	22.628	3	.000
2.	Age	64.847	21	.000
3.	Department	62.590	24	.000
4.	Degree Program	86.872	30	.000
5.	Semester	48.033	9	.000
6.	Shift	25.502	3	.000

Table 2.23 is a representation of the comparison between the use of internet instead of going to movie by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in the use of internet instead of going to movie with respect to gender, age, department, degree program, semester, and shift.

Table 2.24

Chi square test for comparison between item 'Do you use internet instead of going out/ socializing?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	20.576	3	.000
2.	Age	56.056	21	.000
3.	Department	46.806	24	.004
4.	Degree Program	54.429	30	.004
5.	Semester	18.526	9	.030
6.	Shift	12.775	3	.005

Table 2.24 is a representation of the comparison between the use of internet instead of going out by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers

differ in the use of internet instead of going out with respect to gender, age, department, degree program, semester, and shift.

Table 2.25

Chi square test for comparison between item 'Do you use internet instead of household work?' and demographic variables of prospective teachers (n=1000)

Sr. No.	Demographic variables	χ^2	df	α
1.	Gender	19.039	3	.000
2.	Age	76.159	21	.000
3.	Department	46.183	24	.004
4.	Degree Program	70.931	30	.000
5.	Semester	20.428	9	.015
6.	Shift	20.394	3	.000

Table 2.25 is a representation of the comparison between the use of internet instead of household work by prospective teachers and demographic information of prospective teachers. It is clear that, χ^2 value is significant at $p \leq 0.05$ for all demographic variables (gender, age, department, degree program, semester, and shift). So, it can be concluded that the prospective teachers differ in the use of internet instead of household work with respect to gender, age, department, degree program, semester, and shift.

Conclusion

The purpose of this research was to explore the effects of internet on mental and emotional health of prospective teachers. The result of this research indicates wide range of internet effects on mental and emotional health of prospective teachers such as; liking online games, communication purposes, and excessive use of internet. Internet websites has been used for so many purposes by the youth of our country. They are using it for fun, chatting, playing games, increasing political awareness, sharing personal experiences, and connecting to their teacher and sharing assessments with friends and collage mates. Along with these uses, internet leaves some negative effect on mental development by using frequent use of internet. Some of them has affected the mental development in positive and good way and academic performance of the student. This is causing serious harm to their mental development.

Half of the prospective teachers use internet and they like online games and they like to use internet from their homes. Nearly half of them considered that internet is the main way of communication, they share

videos and they do not make unknown friends on internet. Most of the prospective teachers said that internet is helpful in getting information about health and nutrition, internet is helpful in their studies, research work, in getting knowledge. Majority of the prospective teachers use internet more than 2 hours per day. Some of them spent online time chatting. Most of the prospective teachers were depressed when they stayed online for long hours with friends. Some of them said that internet affects their physical activities and they become moody, restless when they stop using internet. Most of the prospective teachers use internet instead of watching television, instead of sleeping, instead of going out, instead of household work.

On the basis of gender, age, department, degree program, semester, and shift the prospective teachers differ in liking online games, usage of internet, making friends on internet, time spent on chatting, feeling depress when stay online for long hours with friends. On the other hand, prospective teachers showed a clear difference in the excessive use of internet (use of internet instead of talking on phones, instead of exercising, instead of going to movie, instead of going out, instead of household work) on the basis of gender, age, department, degree program, semester, and shift. However, gender, age, and shift influence all the aspects of mental and emotional health of prospective teachers. On the other hand, semester, department, and degree program had less influence on other aspects.

Recommendations

Prospective teachers should minimize the use of internet for entertainment purpose. Social and health organizations should join hands to address these identified problems. Parents at home, and teachers at institutions are advised to remain vigilant to encourage safe internet use. Students' should monitor their own Internet based activities, and curtail the timings to increase its productivity. Misuses of the Internet should be avoided at all times to make the best use of the available facility.

Protection polices offered by telecommunication companies must be utilized to protect a child from any harm. Equipment or computer software (e.g., anti-virus software, antispayware, or firewall) should be provided to parents to monitor internet use for screening and blocking of inappropriate internet sites.

Computer laboratories in schools should be in well supervised areas to ensure that students use the Internet appropriately to protect student's

safety. This research was restricted only to 9 departments, it should also be conducted in other educational institutions and more departments..

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Comparative Analysis of Educational Needs and Residential Care Services for the Destitute Children in Private and Public Welfare Homes Peshawar, Khyber Pakhtunkhwa, Pakistan

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Abstract

In Pakistan, deficient literature on residential care and educational services for destitute children raises concerns because child social protection is mostly ensured by families, and in the absence of families, these are provided by either public or private organizations. The objective of the study was to compare public and private residential care and educational services for destitute children in residential care homes. The symmetry of residential care services with indigenous familial services was analysed by using a convergent mixed-method research approach. The Quantitative data was collected through a questionnaire from 274 children and qualitative data interviews were conducted with 5 staff members of the residential care institutes in Peshawar, Pakistan. The study found that public and private residential services are unique. Also, the service provided in the residential care institute was rated similar by children to their home setting, but staff members describe it as high quality. Hence, it was concluded that public and private organizations were providing similar kinds of services which were symmetrical to poor families' provisions. A more holistic comparison of different types of residential care with indigenous familial services may provide more insight into the problem.

Keywords: *Mixed-Method, Social Protection, Destitute children, Public, Private, Residential care, educational services*

Introduction

Worldwide estimates show that 2.7 million children are living in residential care facilities. Meanwhile, 15 out of 100,000 children live in residential care only in South Asia (Cappa et al., 2022; Petrowski et al., 2022). This estimate may be the tip of the iceberg because developing countries lack effective reporting and protection mechanisms (Khalid & Hassan, 2020; Rehmatullah, 2002). Thus, nearly 7 million orphans live in residential care. Majority in the age group 7-15 years with more male dominance (Abdullah et al., 2015; Alam & Sajid, 2021; Ali & Muynck, 2005; Bukht et al., 2020; Feroz et al., 2020; Mishra & Sondhi, 2018; Sellers et al., 2020). However, the actual statistics will be different due to under-reporting. Major reports suggest a range of 2 million to 8 million (Browne, 2009) but this lacks reliable updated data. The rapid increase in destitute children leads to high enrolment in residential care. It is the outcome of structural factors in societies to either push or pull children into residential care. Poverty and large family size are the dominant push factors (Pillay, 2016). Similarly, the pull factors include food, education, health and recreation opportunities in residential care settings (Naqshbandi et al., 2012). In addition to that, some minor factors are neglect of parents and stigma (Pillay, 2016). Studies support that destitute children see residential care services as an opportunity to end their disadvantaged adult role and deprivation (Mishra & Sondhi, 2018; Sellers et al., 2020). Meanwhile, children who got no access to residential care are found the trap by gangs, drugs, beggary and poverty (Hassan et al., 2020; OECD, 2019; UNICEF, 2021; World Bank, 2020). Various measures are suggested by researchers for the prevention of children from deprivation. It includes reducing push and pull factors, as well as provision of quality residential, care services (Dybic, 2005).

The quality of residential care is associated with evidence-based service designing but most residential care lacks evidence-based practices. Almost 88% of stakeholders report their model of practice evidence base while each organization has put into practice its own services model (Dozier et al.,

2012; Khalid, 2014). As a result, their services are wrestling with the delivery of evidence-based residential care services (James et al., 2015).

addition to that UN CRC stressed right-based services for a child and prioritized basic physical needs fulfilment such as shelter, food, education, and recreation. In response to that major organizations arranged full-time homes for children. However, children were reported to feel insecure in it. This may hamper their development (Sellers et al., 2020). This situation becomes worse when disabled children were mixed-reared with normal. However, studies in Peshawar found that 64% of children were satisfied with the overall accommodation of residential care homes (Abdullah et al., 2015; Akram et al., 2015).

Residential care homes follow food menu, according to their resources (Tahir et al., 2015). The majority of Children show satisfaction with the food (Abdullah et al., 2015). Overall studies are mixed as some state that the fixed menu of food is hard to justify for a balanced diet (Feroz et al., 2020) and children show malnourishment (Lassi et al., 2011; Sanou et al., 2008). Whereas, other suggest that the dietary intake of these children are good as compared to their counterpart in the street and community (Bukht et al., 2020). Educational services in residential care homes vary according to the type of organization. Major residential homes claim to have their school system for children but are found to be more focused on religious education (Feroz et al., 2020; Tahir et al., 2015). Few residential care homes send their children to outside public and private schools. In contrast to the claims of quality education, researchers found low-quality education and harsh treatment of destitute children in their schools (Alam & Sajid, 2021).

Nearly all residential care homes provide any form of recreational services to children (Abdullah et al., 2015; Mishra & Sondhi, 2018). Their recreational services are dependent on sponsorships from donors and the availability of funds (Feroz et al., 2020). Indoor games are most frequently founded, as in Pakistan, residential care homes prohibit children from outdoor games, because of protection issues. Similarly, the children of residential care homes are diverse kind. The worldwide trend in residential care shows the dominancy of orphans and AIDS-affected children in Africa with NGOs sponsored homes (Sanou et al., 2008). Europe has poor and homeless children

with publicly supported foster homes (Kamerman & Gabel, 2006). Indian sub-continent shows the dominance of orphans within faith-based organization homes (Dutta, 2016). Major children in China and Russia are poor and orphans living within indigenous model homes. Among all these practices for destitute children, studies consider the Chinese model to be more effective of all (Hong et al., 2015).

Since the UN conventions on child rights, the quality of residential care is associated with universal right-based institutional care (Frances, 2011). Countries also failed to formulate residential care services based on universal child rights conventions (Kamerman & Gabel, 2006). However, studies raise questions about quality of this approach. In contrast, evidence suggests training and qualified staff is key to quality services but this is hardly found in this kind of service (Davidson, 2010). In some situations, only one caregiving staff is available for children to take care of (Feroz et al., 2020). The vague and misfit residential care services pushed children back to family support (Dutta, 2016). In response to these issues, even the United Nation call for alternative care services (Huefner, 2018).

Since Pakistan's ratification of UN child rights conventions and optional protocols till now the government lack effective protection services for destitute children. (Society for the Protection of the Rights of the Child, 2012; UNICEF & Government of Pakistan, 2017). Hence, a mixture of public and private residential care services existed for destitute children. Government-run sweet homes and welfare homes as residential care for destitute children. Civil society organizations have their own care homes in different parts of the country (Sayeed, 2004; Shujaat, 2015). After the 18-devolution amendment, all the power and responsibilities of child protection shifted to provinces. In this regard, Khyber Pakhtunkhwa province passed the child protection and welfare commission act 2010. After the implementation of this act social welfare ministry developed protection units at the district level and a model home in Peshawar, Mardan named *Zamong Kor* (Our House).

In the growing situation of destitute children in Pakistan. Experts believe that in Pakistan, due to structural and policy issues public and private residential care services for children are not as effective and of average quality (Alam & Sajid, 2021). According to studies Public care homes have untrained

and under staff (Shujaat, 2015). This put younger children at more risk of abuse by staff and children (Mahmood et al., 2020). Private care services attempt to provide comparatively satisfactory services (Akram et al., 2015) but lack sustainability. Thus, a lack of empirical study on comparative analysis of public and private residential care services may compromise global child protection efforts as well the regional services (Towe et al., 2009). Also compromised the rights of children to safe family or community support and less exposure to institutionalization (Longfield, 2020).

The purpose of this inquiry is to compare public and private residential care and educational services with indigenous family provisions to conclude for suitability of child protection services in an indigenous cultural context. We chose a convergent mixed-method research design in contrast to early studies. This will provide a comprehensive understanding of the problem within context (Lund, 2012). Addressing this problem will provide the opportunity for public and private residential care providers to understand the importance and collaborating role of indigenous cultural patterns in child protection services and to redesign their intervention and policies to enhance social protection for destitute children.

Theoretical Framework

A more agreed definition in the children's context is any type of temporary living arrangement either in institutions or group homes where children are looked after by a paid caregiving staff (Groza & Bunkers, 2017; Nhep, 2021). Thus, under this definition, our study includes all short and long-term services such as residential schools, orphanages, and institutions but excludes all foster care services either provided by families or kins. We use United Nations Child Right Convention as a theoretical framework. In child welfare services CRC is a suitable framework to operationalize child wellbeing (Wulczyn et al., 2021). Though, only a child physical need-based approach was adopted. For this article 27, 29, 30 and 31 of the UN CRC were operationalized. Thus, four core items were identified and operationalized.

Table 1

Variable for the study

Dependent Variables	Intervening Variables	Independent Variables
Residential Care Service	Guardian Occupation	Food
	Child Enrolment Causes	Shelter
		Education
		Recreation
		Caregiving

Materials and Methods

To compare residential care services designed for children we adopted a convergent mixed-method design under the triangulation. This method provides a holistic insight into complex welfare problems (Creswell, 2014; Lund, 2012). In addition, the convergent nature of the method provides context for the equal representation of service providers and users (Creswell & Clark, 2017; Gunasekare, 2015).

First, we conducted a pilot study in the universe of the study. It is the capital city of Peshawar in the province of Khyber Pakhtunkhwa in Pakistan. Six residential care homes were identified to be included in the study because of the proximity and permanent residential care services providers. Then utilized a non-nested sampling technique and each residential care home was divided into children and staff members. through concurrent sampling methodology, allocated a separate sample for each qualitative and quantitative data (Schoonenboom & Johnson, 2017; Teddlie & Yu, 2007).

For the quantitative part of the study, 288 out of 1024 children were estimated statistically by the Yamane formula (Yamane, 1967). Sample distributed through proportionate methods among the residential care institutes. The researchers then visited each residential care institute and printed questionnaires were filled in from randomly selected participants. However, only 274 children participate in the study. Collected Quantitative data were analysed statistically. Two hypotheses were proposed: (i). Private residential care services are more effective than public; (ii). Residential care service for destitute children is like their familial services. These hypotheses were tested through the chi-square tests.

A sample of six staff members was selected with the help of a purposive sampling technique. Interviews were conducted with five participants in their offices. The rest of one residential care home was shut down during the period of this study. An interview guide was used during the interview process and audio was tapped through the recorder. Qualitative interviews were transcribed and analysed for themes with the assistance of QDA Miner Lite software. Written consent was obtained from each residential care institute and verbal from each participant. Results were triangulated to answer for research question accordingly.

Results

All children who lived in the residential care homes were male as no female child was reported in the study. Age-wise comparison show public and private residential care institutes' differences (Table 2: Public N=74, 9-13, Private N=78, 14-18). Children also vary by family background (Table 2; Public N=56 Nuclear, Private N=79 Joint). A significant number of children belong to nuclear families in both residential care institutes (Table 2: Public 43.4%, Private 56.6%). Children guardian occupation for labourers stands highest at 40 % for public residential care institutes and 60.0% for private, meanwhile, the employees' children ratio is slightly higher in private 78.3% as compared to 21.7% (Table 2). The significant reason for admission to residential care was orphanhood and poor families (Table2: Orphanhood; Public N=63 Private N=129, Poor family; Public N=35 Private N=36) but private residential care homes show enrolment of N=6 drug addicts' children as well.

Table 2
Demographic characteristics of Children participants

		Public residential care institute		Private residential care institute	
		Count	N %	Count	N %
Age	3-8	2	4.9%	39	95.1%
	9-13	74	56.1%	58	43.9%
	14-18	23	22.8%	78	77.2%
Family type	Nuclear	56	43.4%	73	56.6%
	Joint	38	32.5%	79	67.5%

		Public institute	residential care	Private institute	residential care
		Count	N %	Count	N %
Guardian occupation	Extended	5	17.9%	23	82.1%
	Unemplo yed	35	47.9%	38	52.1%
	Laborer	40	40.0%	60	60.0%
	Employee	13	21.7%	47	78.3%
	own business	11	26.8%	30	73.2%
Reason admission	of Drug abuse	0	.0%	6	100.0%
	Delinquen cy	1	20.0%	4	80.0%
	Poor family	35	49.3%	36	50.7%
	Orphan hood	63	32.8%	129	67.2%

Residential care institutes wise comparison of services

To evaluate the first hypothesis, we compared residential care institutes according to their Food, shelter, education, recreation, and caregiving ratings by children and then cross-check it with qualitative results.

In the category of food, the N=51 of private residential care institute children rated their food as exceptionally good. In addition, 36.4% of public residential care institute children considered their food good in comparison to 46.3% of private but for the bad category, only public stood at 18.2% as compared to 4.6% in private (Table 3). Test results showed the significance of this association (Table 3; $\chi^2 = 17.256$, $P = 0.002$). Good was a widely held response toward accommodation 43.4% for public and 34.9% for private children. A slight difference appeared for bad ratings 13.1% for private as compared to only 3.0% for public. Chi-square tests showed this relationship significant (Table 3; $\chi^2 = 10.236$, $P = 0.037$). The comparison for the education services did not appear statistically significant (Table 3; $\chi^2 = 2.824$, $P > 0.05$). In the comparison of the recreational services, the public stood at 31.3% in the

normal category and private at 57.7% in the good category. This result found statistically significant as test statistic indicated ($\chi^2 = 45.975$, $P < 0.05$). Further, both public and private residential care institute showed higher ratings for the overall good well-being of children (Table 3; Public 71.7% vs. Private 45.7%). In addition, it was found overall well-being particularly good 27.4% of private residential care institutes as compared to public 5.1%. Therefore, the test results also favored these differences (Table 3; $\chi^2 = 28.177$, $P < 0.05$) and thus did not support the stated hypothesis.

Table 3

Quantitative comparative analysis of public and private services

Rating type		Public residential care institute		Private residential care institute		χ^2	df	P- Va
		Count	Row N %	Count	Row N %			
Food	Very good	20	20.2%	51	29.1%	17.256	4	.002
	Good	36	36.4%	81	46.3%			
	Normal	22	22.2%	28	16.0%			
	Bad	18	18.2%	8	4.6%			
	Very bad	3	3.0%	7	4.0%			
Accommodation	Very good	34	34.3%	50	28.6%	10.236	4	.037
	Good	43	43.4%	61	34.9%			
	Normal	13	13.1%	33	18.9%			
	Bad	3	3.0%	23	13.1%			
	Very bad	6	6.1%	8	4.6%			
Education	Very much	51	51.5%	99	56.6%	2.824	4	.588
	Somehow	27	27.3%	44	25.1%			
	Normal	14	14.1%	15	8.6%			
	Unsatisfied	5	5.1%	13	7.4%			
	Very much unsatisfied	2	2.0%	4	2.3%			
Recreation	Very good	18	18.2%	46	26.3%	45.975	4	.000
	Good	27	27.3%	101	57.7%			
	Normal	31	31.3%	17	9.7%			
	Bad	15	15.2%	8	4.6%			
	Very bad	8	8.1%	3	1.7%			
Overall Wellbeing	Very Good	5	5.1%	48	27.4%	28.177	4	.000
	Good	71	71.7%	80	45.7%			
	Normal	18	18.2%	30	17.1%			
	Bad	5	5.1%	10	5.7%			
	Very Bad	0	.0%	7	4.0%			

Table 4
Qualitative comparison of institutional services

Category	Quotes
Public residential care institute description of services	<i>“Our institution provides full-time high-quality accommodation with all kinds of services, which a family may provide to a child including, quality and timely meals, having bedrooms for children, clothes, school uniforms, and education and so on. Every two children are provided one room for living. They have drinkable water and a toilet”</i>
Private residential care institute description of services	<i>“We provided them with every kind of service, mean including every child that getting; what in their home can get that here. A standardise diet, a standard education, medical facilities, and recreational facilities, what have their needs are fulfilled by the residential care institute. Upper-middle-class family-like services are provided to children here”</i>

Qualitative results verified the mixed difference between public and private services. The services provided full-time residential care which includes the fulfilment of children's all physical needs. Also, both residential care institutes considered their services effective and categorise them as good quality (Table 4).

Comparison of residential services with children's familial services

The second hypothesis; Residential care services for destitute children are like their familial services was tested. A chi-square test was applied on the self-rating data of children. It indicated that the stated hypothesis stood true ($\chi^2=92.569$, $df=5$, $P=.00<0.05$). Additionally, descriptive statistics indicated that the observed values for similarity of home and residential services were among the highest (Table 5: same as home observed 121, expected 68.5).

Table 5*Rating of institutions' services by children*

Rating	Observed N	Expected N	Residual
Good from your home	84	68.5	15.5
Same as your home	121	68.5	52.5
Not like your home	40	68.5	-28.5
Your home is better than this	29	68.5	-39.5
Total	274		

Qualitative results from interviews with staff members did not support the quantitative findings. Rather, it suggested that the services provided by the residential care institutes were of the best quality in comparison to destitute children's familial services. The respondents provided that most children belonged to poor families and could not afford this kind of service. They were of the view that destitute children are very much satisfied with the residential care services as they never stay long at home (Table 6).

Table 6*Comparison of residential services with local family services by residential care institute staff*

Dimension	Quotes
The quality of accommodation provided to children in institutions is much higher than those families provide to them	<i>"Our institution provides a full-time high-quality accommodation with all kinds of services, which a family may afford"</i>
Services for children provided here are of upper-class family level	<i>"Upper-middle-class family-like services are provided to children here"</i>
The children are very much satisfied with services as compared to their living in families	<i>"When we send these children home for many days they return after 2 days with the intent that their homes have no such kind of facilities that are available for them here"</i>

Discussion

The results of this study highlighted several factors. First, there were gender disparities in residential care services for destitute children. Therefore, it provided that female children have very low access to residential care services which was founded in the early literature on child protection programs (Abdullah et al., 2015), however, Mishra & Sondhi (2018) study disagreed by finding out more female than male children. Second, this study demonstrated that most of the children in these residential care institutes were orphans. It is the verification of findings of earlier scholars who named residential care homes in Pakistan as orphan homes (Akram et al., 2015; Alam & Sajid, 2021; Castillo et al., 2012; Feroz et al., 2020; Mahmood et al., 2020). Moreover, it is believed that the number of street and drug-addicted children are very high in cities (Society for the Protection of the Rights of the Child, 2012) but only private residential care institutes included some drug-addicted children. The more marginalized street children and addicted who are more in need of such kinds of services were absent. This may be due to the possible poor enrolment mechanism.

The major age category in this study is 9-13 years which is in line with the major trend in early studies (Whetten et al., 2009). In addition to that family stands, as the first actor in children enrolment and the institutional staff's role in searching for an enrolment of destitute children were negligible. This may be due to the possible lower age group or may be due to the dominant role family play in children's lives in this cultural context. This study supports that a major portion of these children belongs to nuclear families. Thus, there may be an association between children's enrolment in a residential care home and family type which need further exploration. It may be due to the low capacity of families in face of poverty to support their children. It was found that the decline of extended family and kins support pushed destitute children to depend on residential care services (Dybicz, 2005).

The findings of this study are providing mixed support to the stated hypothesis. One residential care institute was performing better in one category so the other was doing well in another category. Therefore, this is not in line with the stated supposition. However, private residential care institutes showed slightly higher quality in food and education. It is because private

institute have either their own private school or they send children to a standardise private school. However, it is low significant association. Former research indicated a slightly better quality of food and educational services in private residential care (Feroz et al., 2020; Tahir et al., 2015). The public residential care institutes showed better ratings in accommodation, recreation, and caregiving. This finding also supports by some studies (Abdullah et al., 2015) but some disagree and report that children are provided low-quality services that put them at risk (Mahmood et al., 2020).

The qualitative result also supports these findings and did not report any major difference in the services of public and private residential care institutes. Despite these findings of the current research, past studies suggested private residential care is better quality (Kamerman & Gabel, 2006; Ryan et al., 2009) and better satisfy children's needs (Akram et al., 2015). Although, the possible factor in the correspondence of services in this study may be the adoption of a universal approach to child protection by the organization. Policies of the government and private residential care institutes are highly influenced by the universal convention on child rights. Thus, they see the success of child protection services in an adaptation of universal models and conventions in designing their services (Pulla et al., 2018).

Major literature on child protection stress on provision of right-based services to children which includes all the granted rights of children in universal conventions to be fulfilled by residential care institutes. (Khalid, 2014; CRC¹, 1989). However, it was found that each residential care homes claim the uniqueness of its services which any other residential care institute may not be able to provide. This study concluded that all their services are one copy applied in all public and private residential care institutes. Some scholars warn about the universal approach for child protection around the world (Dybiecz, 2005) which ought to be successful in every cultural context. Children reared in low-quality residential care are at greater risk of abuse and attachment in later life (Greger et al., 2016).

Therefore, findings from children and staff were not aligned, each supported a different perspective. Quantitative findings indicated that

¹ Convention on the Rights of the Child

residential care services were providing a home-like environment to children and qualitative suggested the highest quality of services. It pretended by service providers that residential care services are more effective. Some studies support the finding of qualitative results. Research reported that residential care is better than children's home environment (Whetten et al., 2009). However, this claim is in contradiction with our quantitative findings which report it like child home provisions. Some studies correlate children's high satisfaction with residential care to their poor familial background (Mahmood et al., 2020). They identified that the possible factor for the rating of services as like home is the cause of the poverty level of households. These children have no access to any basic needs in the family. Their families hardly manage to provide them with food. Thus, these destitute children perceived residential care of better quality.

Similarly, residential care services in developing countries such as Pakistan are based on basic need fulfilment and are key to the successful integration of destitute children in societies (Mathiti, 2006). On the other hand, it is well established by some studies that public and private social protection services for children lack a commitment to quality in Pakistan (Khalid, 2014). Studies associate the deferential effects of institutional care with low-quality, resources and untrained staff (Sanou et al., 2008). This suggests that the quality of care in residential care is more important than its setting.

Thus, our results suggest that service providers need to consider the quality and cultural compatibility of residential services. They also need to consider the scholar's approach who did not consider residential care for orphans and destitute children as a priority and an effective solution to a problem. They consider these services maybe not be a successful substitute for the family system (Dozier et al., 2012). It is suggested that children living in the traditional family system may have a better quality of life than those in residential care. They propose that system of residential care is the product of the developed nation. Child protection services based on different cultures did not fit into developing countries' cultural contexts. Thus, there is a need for a locally emerged solution to child protection problems (Jabeen, 2013; Kamerman & Gabel, 2006; Rehmatullah, 2002).

Conclusion

This research in combination with other recent studies on the comparison of public and private residential care and educational services put forward that residential care and educational services provided by residential care institutes and their compatibility with indigenous cultural context is a common question in developing countries like Pakistan. So, it is important to analyse the residential services in association with destitute children's family environment. By assessing the residential care and educational services for destitute children through a mixed method, it is established in this study that such kinds of services, of less accessible, limited, and minimum quality may not be a substitute for those services that a poor family can provide. There must be a mechanism to assess residential care services in comparison to familial services to better care for destitute children. It put forward, the need for assisting children within their families, and residential care services must be the lowest priority for destitute children. Hence, in this study, it was found that residential care and educational services for destitute children have similarities with those families provide and are not of good quality. As well as we found that public and private residential care institutes did not vary in services. However, slight differences were reported which nullify each other. Hence, residential care and educational services must not be based on sole universal convention alone. It might satisfy children's needs but leave no room for improvement of protection services for destitute children.

Prospect research on residential care services' effectiveness and compatibility within local cultural contexts may provide a platform for quality services. Also, qualitative in-depth studies need to uncover the lives of destitute children and their problems during institutional care provided to them by public and private organizations in the local context. This study's qualitative finding may be affected by the possible factor of respondents' social desirability bias due to the small sample size. Further investigation based on a larger sample size may provide precise data about the phenomenon. There is a need for studies to explore the possible link between families' backgrounds and children's perceptions of residential care services.

Declaration of interest

The Authors have no conflict of interest and no funds received for this research.

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Effect of Cooperative Learning on the Elementary School Students' Achievement in the Subject of English

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Abstract

The present study investigated the effects of the STAD model of cooperative learning (CL) on the achievement of students in the subject of English at the level of elementary. Thirty (30) subjects were selected as the treatment group (experimental group) and another Thirty (30) subjects belonged to the control group (traditional group) for carrying out this study. The data were analyzed by using the SPSS 22 version (Statistical Package for Social Sciences) where the mean score of both the pretest and the posttest was calculated. The effect of the STAD model / technique was compared with the gain score of the control (traditional group), as an experiment. Amidst the data analysis, an independent sample t-test was applied and then the effect of the treatment group was calculated. Significant difference was seen between the scores of the control group and treatment group.

Keywords: *Cooperative Learning, Students Achievements, STAD Model, English Achievement Test, Elementary level*

Introduction

Teaching is a multifarious, integrated blueprint of activities directed for specific goals and tasks. It is also viewed as a therapeutic set of instructions that specifically deliver a subject or a handful of skills. It brings about

variations in life that flourishes expression, training, specificity, and adequacy in students. It gives a sufficient ethical and educational platform for an environment. What, it consists of, is a facilitator as a teacher, students as learners, and content as a curriculum which is in form of pictorial representation, facts, skills, and information, to impart deliberately (Parker, 2013). The richest part of this research comprises teaching practices, reflections, theory, and pedagogical skills. Methodologies have their importance, which may be distributed among the richest parts of the theory, research, practice, and pedagogical skills. The teaching has distributed immense values, choices, techniques, and strategies, during classroom sessions either on the classroom level or outside the classroom level.

Choices about methodologies of a particular subject, are contingent mainly on philosophical foundations, educational psychology, multidisciplinary administration, prescribed curriculum, and customized classroom settings with a broader extent of an assigned topic, consequently, measuring results and evaluation of this kind of format (Antil, 2013). Sunil (2012), elaborated on the diversification of such teaching methodologies, which are effective from the communicative skills to desired learning outcomes. Multiple options are used to operationalize this kind of diversification considering the individualistic backgrounds of students, their previous knowledge, the medium of instruction, and an environment where they have been getting knowledge and achieving their respective instructional goals.

Since, there are many ways of learning, simulating details of a topic, representation of individualistic abilities, and development of attitudes and skills found among students. If a teacher uses blends in his / her pedagogical skills that suffice knowledge in respect of understanding, synthesizing, criticizing, evaluating, and reflecting which, does not only help students to retrieve information but also assimilate information with new knowledge and experiences, coming through the sensory motors (Sullivan, 2022).

If Bloom's Taxonomy (2001), is remembered, which supports six levels for classifying learning objectives of education but, here, author is introducing eight levels in addition to, remembering, understanding, applying, analyzing, evaluating, creating, while including reflecting, and

retrieving.

While mapping the old version of Taxonomy with the newer one, it intensifies instructional goals in correspondence with the creation of plans and finally, execution of achievable objectives for learners. The key difference between the author is that he/she makes them more active and responsible for the evaluation purpose of learning, correctly (Sullivan, 2022).

Sunil, (2012) specified that testing is to questioning, hence, students are evaluated for their intended learning outcomes. He also stated that testing is a form of exam, which can be separated into two main domains, lower-order thinking testing and other is higher-order thinking testing. The first one contains facts, similarities, familiarities, uninterrupted, direct, close ended and focused, whereas, the higher order thinking testing is explanatory, descriptive, consultative, advisory, explicatory, analytical, creativity based and open-ended.

For instance, the best form of testing is when, a learner remembers basic operations, facts, information, and terminologies related to the topic. But it becomes the evaluator, creator, reflector, and retriever, to formulate his / her opinion on an issue. Here, Cooperative learning is introduced as a good pedagogical approach for improving the performance of the students. It aims at, the participation of all which is carried through continuous reinforcement and encouragement of each participant, in order to get achievement, guidance, assistance, mentoring, distribution, encouragement, and explaining (Artiyup et al., 2012).

Rational of Study

The sole purpose of cooperative learning is to establish organized learning groups, thereupon, each member of the group possesses the capability for supporting each other throughout this process of learning. Since, it is a conceptual method which is adopted through a selection of group members for learning, cooperatively. Many pedagogical techniques are, therefore; is catching the attention of many stakeholders, curriculum developers, authors, researchers, novice teachers, and educators (Gibbs et al., 2011).

This research article will be improving problem-solving skills, collaborative activities, adjustable attitude, high self-assurance,

self-enthusiasm, sense of high esteem among students. It will also be addressing diverse cultures and a better environment for situation related problems (Storm, 2015).

Organ et al., (2013) also formulated the Student Teams Achievement Division (STAD), which was one kind of CL method i.e. STAD, a very important way of teaching through approaches across multiple subjects and grades. This model highlights whenever there is a situation, creative or divergent thinking is expected. As, the tasks are completed, learning objectives are achieved, instructor are promoted for optimistic interaction among his / her learners, thereupon, a climate of facilitative learning is established to attain affective and cognitive outcomes.

Objectives of the Study

The following research objectives of the study were formulated:

1. To see the effect of the CL Model (STAD), on students' achievement, in the subject of English.
2. To perceive the reflections and perceptions of the students about the CL Model (STAD).
3. To suggest/recommend, CL Model (STAD), as, the best strategy across all grade levels.

Literature Review

Lancaster et al., (2019) announced this learning methodology way earlier than World War II onset. From their viewpoint, the output was readable and also examined mechanism through which understanding was developed in each individual.

Manning et al., (2016) exposed that cooperative learning was a fact towards advancement and assessment of diverse, cultured classroom settings. (LT)-Learning Together and (ACC)-Alone Constructive Controversy, (TGT)-Teams-Games-Tournaments were the contribution of DeVries et al., (2017), whereas, Group Investigation, Jigsaw Procedure was developed by Aronson et al., (2018) & Slavin, (2018) approximated (STAD)- Student Teams Achievement Divisions, (TAI)-Team Accelerated Instruction and (CIRC)-Cooperative Integrated Reading and Composition and lastly, structures of CL (Cooperative Learning), was formulated by Kagan, (2019).

Resultantly, great applicability of these approaches became the face of CL. This whole mechanism maximized effectiveness, positive interaction, and submissive but impactful contribution to every research study that came under the liability of it. Constant communicative skills, familiarity with intrapersonal and interpersonal management, and situation-based group processing became the way to success among this era's students (Tarim, et al., 2017).

Collaboration referred this kind of teaching method as, an artistic way of group work where a lesson plan is enforced by a teacher. Students in this environment are not allowed to communicate with each other and only listen to comments/views for a specific assignment (Lancaster, 2018).

Allyan et al., (2015) evaluated the effectiveness of the CL methodology with the use of Jigsaw II and Learning Together approaches, as, independent variables and for the dependent variable, he administered an achievement test for the subject of English phonics.

Maslow, (2010) also viewed 158 studies, a meta-analysis that reflected, good scores in achievement tests with the use of CL. He managed around eight techniques for using cooperative learning, effectively:

1. LT is abbreviated from Learning Together and LA as, Alone,
2. CC, abbreviated from Constructive Controversy,
3. JP abbreviated from Jigsaw Procedure,
4. STAD, abbreviated from Student teams Achievement Divisions,
5. TAI, abbreviated from Team Accelerated Instruction,
6. CIRC, abbreviated from Cooperative Integrated Reading & Composition,
7. TGT, abbreviated from Teams-Games-Tournaments, &
8. GI, abbreviated from Group Investigation.

McHale (2002) was of the view, what an umbrella meant to us, it, covered all the parts whether it was related to the body, content, life, or any other general phenomenon, it fitted them all? Did you ever think of, what it was meant here, in this article, this term stood for working in group form of teams, they were students for a common assignment, project or agenda, etc., under uniform conditions for all. In addition to every team member's involvement, the process of accountability among them was also

individualistic, and did not depend on the group. What counted most, every other member of the group remained vigilant, careful, and adhered towards achieving the group goals (Saleem, 2022).

Simsek (2018) set up this term as a tool in, an active tool, to keep the student engaged and participative in a careful way, to execute their skill purposively. Such, systematic peer grouping within the setting of a classroom fostered a good impact, as, a researcher.

Different varieties of CL, were used across various grades, classroom set-ups, and diverse cultures of students, anyhow, the manifesto remained constant, i.e., working together but accountable alone. Whereby, to reach up their academic goals, the strength of using tools, polls, and appliances, might have been different but kept environment friendly, and aligned with the standards of age, gender (Winston, 2012).

According to Walberg (2022) CL, attracted the author due to its genuine sharing of equal opportunity for all group members, he gave a comparison of his work with the CL structures to see significant difference in the achievement level. Most teaching techniques were expanded to the following two styles to utilize them effectively:

1. Teacher-Centered Style
(High-end technology use & Low-end technology use).
2. Student-Centered Style
(High-end technology use & Low-end technology use)

Therefore, conclusively, the word umbrella was interchangeable with CL due to its, all properties, attributes, fundaments, determinants, and characteristics. Multifaced cooperative learning was well depicted, and the structured and modern format of the classes was to be taught under the same circumstances. Only, teacher's role was apprised organizing, odds & ends of the multiple tasks, effectively (Doymus, 2013).

The impact was reported high in respect of each type of CL model that improvised the information, detail, orientation, confidence, motivation, and applicability of acquired learning. Thus, the researcher, opted for the subject of English grammar while using, CL's STAD model, which gathered learners, to learn, to get accountable, to support their groupmates/teammates to accomplish their respective but associative goals, and likewise, rewards (Khan, 2022).

Significance of the Study

Cooperative learning stated that it was like if someone said that they sink/swim together so, are the lessons were structured to maximize their own as well as each other's learning. Such, as learning together that measured and shared common goals. Each member/mate of the group strived for success as it was cooperatively done. The work was formatted in small groups, which were very different from each other meaning thereby, heterogeneous (Kagan, 2022).

Significantly, Joint success was celebrated and evaluated through performance-matching criteria with clear instructions established under the same terms and conditions. Since, this study helped a lot to novice teachers, preservice teachers, stakeholders, administrators, authorities, and governmental bodies who were hard to get convinced to adopt the new teaching strategies which resolved many controversies and found in a way of teaching different subjects, way better than traditional teaching.

Many guidelines for the students at level of elementary helped in adopting strategies which, further enhanced capacity for learning among students and professionals. These, expectations from the teachers to the learners flourished educational context. Kagan, in resources for Teachers (1994) identified that much-needed elements for the CL STAD Model were positivistic Interdependence, Individualistic Accountability, Equity in Participation, and immediacy while doing Interaction. He also wrote the guidelines for future editors/authors of textbooks that how to maximize and substantiate the content areas. At the cost of these researches, better decisions were made to carry out such strategies which improved comprehension, spoken, reading, writing, and creativity for every subject. CL interventions attracted communities from every walk of life such as educational psychologists, curriculum experts, stakeholders, educational counselors, and career organizers, etc. this study unfolded, better qualities and creativities among students, who faced learning problems in every subject, including the subject of English. As the researcher knew that daily use of English was very limited because of its foreign language / second language (L2), therefore; she focused on the applicability cum generalizability of CL interventions, to bring about changes in the real life. Ultimately, this method became more socialistic, independent, comprehensive, practical, adhesive, and creative and was being used more

frequently. (Khan, 2022)

Problem Statement

In the present research article, the researcher supported this methodology as, it was very much effective for micro-teaching, initiating self-confidence, self-efficacy, and self-believing towards the traditional way of teaching (Ting & S. H., 2017). Implementation of the CL model, not only minimized difficulties faced by the traditional teachers but, also catered diverse cultures of the different communities. Thus, the implementation of CL revealed, professionalism that was persuaded by theory, practice and performance which made it more usable and generalizable. It, certainly increased analyzing ability, retaining power, and retrieving capability that resolved complex cognitive issues (Etrike, 2022).

Hence, the present study aimed to “*evaluate the effect of Cooperative Learning on the achievement of students in the subject of English at the elementary level*”. Here, CL Model (STAD) was conducted to attain the desired scores in their achievement test, specifically, in grammar, the subject of English. Therefore, it was very necessary to operate any CL methods in form of intervention to evaluate the effects/impact of quality results in the English subject or any else (Saleem, 2022).

Hypotheses

The present study's null hypotheses were as under:

1. There was no significant difference found between the mean gain score of the experimental group and the control group.
2. There was no significant effect of treatment on the gain scores of the experimental group (the students taught by using the STAD method).

Delimitations of the Study

1. It was delimited to private sector schools (boys and girls), from District Lahore, only.
2. It was delimited to explore the impact of the CL Model (STAD), only in the subject of English at the elementary level through achievement tests.
3. It was delimited to the same school's students and teachers of the

same grade level i.e. elementary level.

Research Methodology

Two homogenous groups, one control and the other experimental, were assessed, completely. Complete such six heterogeneous groups were made of equal numbers of members/participants, for the experiment group. Each group had five team members, who were selected based on their scores in the pretest i.e. Achievement test for English. The researcher employed an achievement test, first, then scored it for the subject of English. It was conducted by the school administration on a routine schedule. Later, the researcher exposed CL, STAD Model, and technique under the supervision and assistance of the class teacher, and the expected period (time), was almost one complete month means, a total of thirty days with the experimental group.

Whereas, the other traditional group also named as, controlled one, whilst, the same teacher taught this group, in a traditional method of teaching. Rehearsal quizzes, which had around 30-multiple-choice questions (from the material/parts which have just learnt during the class), were exposed in each session of class time and the calculated duration was 15 minutes, other than the teaching/learning time of class. The purpose was to explore the understanding of heterogeneous, experimental group mates with the 30 multiple choice questions, daily as, it was from the material/parts just learned in the class.

Likewise, the group mates were told how they got to interact purposefully, with each other. This, also helped them to understand the importance of helping each other. Participants from the treatment/experimental group were excited to learn through the STAD Model/technique and also stimulated their group mates to work together at every level of diversity whether it was communicative or on practicing quizzes. Rest, it was assured to brief all participants that how they were going to answer a question. Lastly, they were seated back in their allotted group in rows, and same like before, quizzes were given to them all.

The only difference was that no conversation or help was allowed at this stage. it was strictly observed that one did his / her task by himself/herself as they were directed by the researcher. Once, they got finished their respective task which was quizzes, it was further categorized

by the class teacher but, this was customized by the researcher. Likewise, the quizzes were handed back to them for proofreading and maintaining quality, so, that improvement of the team through their scores can be recorded, earlier.

Here, it was compulsive to appreciate those group participants who, presented improvement (previously, did low scores), to enhance their self-esteem and confidence. Similarly, all the best-performing mates were appreciated which, brought better team results, too. Moreover, their achievement was posted on the Best Team Bulletin Board (BTBB), throughout the week so, that they become more energetic till they again were exposed to the next STAD Model/techniques quiz. On the other hand, the control group was doing their job, the way, they had been doing it earlier. Conclusively, achievement test in the subject of English was administered to experimental as well as, the control group, whether, there exists difference in the scores of achievement test (posttest), the first one exposed to the STAD model/technique and other with the traditional method.

Population

There was a total population of elementary students (n=180), from 3rd grade of (unnamed), private school from district Lahore.

Sample

In terms of accessible population, two sections, out of six sections of the elementary students from the third grade, were selected wherein, the convenient sampling technique was employed. and finally, selected two sections, which, consisted of 30 students in third grade at the elementary level. Each section had thirty students, as the experimental group and the other section had the same number of students but, the control group. STAD Model/technique was used for the experimental group, to evaluate the effect of the independent variable.

Date Gathering Instruments

For accomplishing the gain score on the post-test, the English Achievement Test (EAT-grammar), as, a tool was administered, for the English subject that consisted of twenty-five (25) items of Multiple-Choice Questions, out of total hundred and sixty (160) items, with four (4),

options. The more focused area was grammar, mainly tenses. Whole targeted content was developed in a documented blueprint which enabled the researcher to construct test items. This was pilot-tested and reported as, reliable.

Data Analysis Technique

The experimental group underwent the STAD Model/technique for one month with the use of the SPSS 22 version (Statistical Package for Social Sciences). For the comparison of two (02) groups i.e. traditional/control group and experimental/treatment group, an independent sample t-test was applied. There were fifteen (15) (50%) male students & fifteen (15) (50%) female students and both had same percentages i.e. 50%.

Table 1

Means for both Groups in Pre-test and Post-test (n=30)

<i>Tests</i>	<i>Groups</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>t</i>	<i>df</i>	<i>P</i>
Pre 1	STAD	30	2.710	1.1472	-.418	57	.688
	TL	30	2.712	1.0142			
Pre 2	STAD	30	2.823	1.0353	-1.301	57	.174
	TL	30	3.243	1.0214			
Pre 3	STAD	30	2.533	1.0115	-.363	57	.720
	TL	30	2.933	1.1273			
Pre 4	STAD	30	2.830	0.8112	-.684	57	.498
	TL	30	3.027	1.0626			

Note: *M=Mean, df= Degree of freedom, STAD= Student Teams Achievement Divisions, TL=Traditional Learning, SD=Standard Deviation, $p > 0.05$.*

An Independent Samples t-test was applied, to see inter-group differences in the subject of English (EAT-Grammar), on achievement test of students.

Table 1 showed, there existed no significant difference exists between mean scores of traditional/control group and experimental/treatment group. Since, the scores of the students, on achievement test also did not execute difference in pretests 1, 2, 3, and 4, significantly, in the subject of English (EAT-Grammar).

In accordance with the table work, standard deviation (SD) referred the change in performance scores of the student which did not have good dispersion of results. Therefore, t-value and P-value of the achievement test could not produce difference in the mean scores of traditional/control group and experimental/treatment group, significantly.

Table 2
Difference between the control group and experimental group during four weeks.

<i>Tests</i>	<i>Group</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>t</i>	<i>df</i>	<i>P</i>
Pre 1	STAD	30	2.711	1.1473	-.419	57	.689
	TL	30	2.713	1.0145			
Post1	STAD	30	2.824	1.0351	-1.302	57	.175
	TL	30	3.244	1.0211			
Pre 2	STAD	30	2.534	1.0116	-.364	57	.721
	TL	30	2.934	1.1277			
Post2	STAD	30	2.831	0.8113	-.685	57	.499
	TL	30	3.028	1.0622			
Pre 3	STAD	30	2.711	1.1475	-.419	57	.689
	TL	30	2.713	1.0146			
Post3	STAD	30	2.824	1.0357	-1.302	57	.175
	TL	30	3.244	1.0212			
Pre 4	STAD	30	2.534	1.0113	-.364	57	.721
	TL	30	2.934	1.1276			
Post4	STAD	30	2.831	0.8117	-.685	57	.499
	TL	30	3.028	1.0621			

An Independent Samples t-test was applied, to see inter-group differences in the subject of English (EAT-Grammar), on achievement test of students. Table 2, showed, there existed no significant difference between change scores of pre-tests 1, 2, 3, and 4, of traditional/control group and experimental/treatment group, in the subject of English (EAT-Grammar). Since, the scores of the students, on achievement test executed difference in posttests 1, 2, 3, and 4, significantly, which reflected as, actual

number of responses.

Since, P-value for the posttests 1,2,3 & 4, respectively reflected significant for change scores of the treatment group, at the statistical significance level as, $P < 0.001$, that clearly rejected the first hypothesis “*There is no significant difference between the mean achievement score of the treatment group and control group*” and likewise, second hypothesis “*There is no significant effect of treatment achievement scores of treatment group*”.

Conclusion

In accordance with findings of the research study, it had been pointed out that at the onset of the experiment, when the pretest was administered, both groups had the same gain scores on the achievement test for the subject of English. That showed, no significant difference was found between these two groups of students on achievement scores of pretests for the subject of English 1, 2, 3, and 4, respectively. The participants of the experimental group were split into six heterogeneous groups, consisting of five members in each. As, these, a heterogeneous selection of groups was made based on previously attained scores on the pretests in the subject of English. Moreover, the researcher also had the reference record of the previous term's achievement test score which, was conducted by the school as, per schedule. Soon, the participants of the experimental group were exposed to treatment i.e. STAD Model/technique, with the assistance of a class teacher. The total period of intervention was full thirty days for the experimental group, on the other hand, the traditional teacher was traditionally teaching the traditional group/control group.

Concludingly, a significant gain score difference was found in posttest 1,2,3,4, between these two groups in their achievement test. Soon after, administering the achievement test for the subject of English in respect of both groups, the calculated difference between the two was at the level of significance i.e. $P < 0.001$, while using the STAD Model/technique for the experimental / treatment group and control for the other. As a result, the STAD model/techniques not only developed innovation but also developed the motivation of the students that working together gives insight, confidence, and vision for a futuristic approach. Due to the friendly disposition of the STAD model/technique, learners also

cherished the active learning environment which, ultimately, adored the professional skills of preservice, novice teachers, practitioners, and researchers.

Since, the sole purpose of any academia, was to motivate learners, and rejuvenate learning strategies, the CL (cooperative learning model i.e. Student Teams Achievement Division, (STAD), proved the same by arousing motivation in every student regardless, one group of learners is dull and other is active, in their past achievement records.

Furthermore, Goodlad et al., (2022) discouraged the trend of not being expressive, not asking questions, having no gossip/reflection about the sessions, listening to every word warily, and copying/writing what, the teacher spoke in the class.

In this regard, if, it was expected that learners become reasoned, adherent to the philosophy, progressive in case of any divergence, expressive for the situation, and confident/fluent communication, maximum freedom needed to be given. Thereupon, speculation of such methodologies was to let them handle their lifestyle, togetherness, engagements, priorities, and situations by themselves along with information handling. According to Gibby et al., (2015) the results of the presented article were aligned with CL, which, showed evidence of retention of subject matter for a longer period, compared to the traditional method.

Certainly, CL manifested as, the safest strategy/method, not a controversy, might be introduced to replicate knowledge, comprehension, retention, reflection, understanding, creativity, curiosity and diversity, etc. at all grades, cultures, subjects, faculties, and disciplines (Jolliffe, 2015).

Recommendations

Globally, CL (cooperative learning) may be supported due to its uniqueness, sharpened nature, and distributive responsibility. The essentials of this strategy are time, funds, and training sessions which persuade opportunities at every grade / academic level either from the public sector or private sector. The salient features of the teaching policy need to be restructured, revise and modernize through this strategy i.e. cooperative learning (Deutsch, 2000).

Logically, the traditional learning settings are replaced with this

new technology aligned with the curriculum. It provides the importance of a compatible environment for the learner. In some places, it generates eco-socio-friendly balance in an environment wherein, learners learn multiple skills like situation-based skills, problem-solving skills, inquiry-based skills, and emergent skills, etc. However, language skills get refined as the frequency enhances in respect of reading, replicating, reflecting one's thoughts, writing, uttering, listening, and speaking for EFL students (Cheng, 2016).

CL (cooperative learning), replaces the existing way of traditional learning by sharpening and defining the individualistic cum collectivistic approach to learning. Many disadvantages are seen in terms of cooperative learning; thereupon, some critics also view that only the method of teaching does not cover learners' needs as, diverse topics demand diverse modes of teaching as well, learning. As the time duration of a period during class time is very short and limited, therefore, it does not cover the whole content and the teacher tends to get along with the traditional teaching method, throughout the calendar year. Probably, it could be a mastery of a unit topic, a chapter, or a demonstration of a traditional teacher who survives students with the same teaching style (Bertucci et al., 2020).

It is very much thought-provoking for all the stakeholders of the society including teachers, learners, vendors, administrators, publishers, contractors, curriculum developers, and all kinds of beneficiaries who have connections with the profession of teaching, and learning or they may incorporate any other body (Bibi, 2012). The main theme of CL (cooperative learning), is to maximize the learner's capacity, intelligence, and cognitive and neurotic ability since, it engages them all, in all activities. The extent of fundamental reasoning developing through this method is assessed by the generalization and application of the phenomena. Prospective teachers/researchers need to explore such interventions for their academia and later, their applicability.

Harmoniously, generous and positive attitudes are developed on the part of teachers and learners with the use of this technique. CL, cooperative learning is a benchmark for success, that is still alive in our society, the only need is to encourage, teach, learn, generalize and apply in our institutions (Bukunola, 2012).

Sheer commitment from the facilitators and likewise, from the

students play a big role which, is very essential for the decision-making of stakeholders to show their openness, brevity, dedication, and impartiality in applying cooperative learning (M.G. & Brooks, 2019).

As, learning is visionary which accentuates the need and want of basic/concrete and abstract ideas, phenomena, concepts, polls, opinions, and criticism. Later, it moves on to bind this with awareness, identification, and mind mapping. This very fact is transferable from obsoleted rites of customary teachers, transforming them into modernized ones (Creswell, 2019).

Modern tutoring shocks the vagueness of previous concept-based subjects like biology, physics, chemistry, astronomy, mathematics, geography, etc. that have been handled and maneuvered only through traditional learning platforms instead of the active learning platform. From activities to content learning, students are directed and engaged through inquiries, options, opportunities, role plays, situations, demos, de various experimentation, to reach phenomena (Arends, 2019).

Ultimately, inimical ways of imparting knowledge restrict them to ask frequent questions, propagation, negotiations, and discussions. With such an attitude, insolence is created at a workplace whether it is a school, madrassah, varsity, university, or lab. It is counted as disrespect for teachers for not being appreciated, and being aloof. Such workplaces do not let them think freely, speak soundly, feel better and behave well, in any spur of the moment. Is not it, embarrassing and stubborn? An education system needs to depict an institution of growing cultures, promoting brains, mapping minds, and flourishing nations, to encourage their learners who are their nation's assets. Off course, for this purpose, our teachers are the machinery and schools are workstations but for perfection/reflection/elevation of communal and societal, educational needs, values, and standards, an executable strategy like CL, may be entailed by the policymakers of the curriculum manuscripts. It may accelerate progress while transforming tradeoffs in adopting new methods which are unpredictable, but realistic in their approach and vision for individual work to teamwork, to attain a common goal (Bayraktar et al., (2011).

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Rethinking PhD Thesis Introductions from Higher Education Perspective: Using the CARS Model

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Abstract

This research study analyzed the Introduction chapters of PhD theses in education that were available on the Higher Education Commission (HEC). Pakistan repository website to find out the level of academic writing skills and organizational abilities of the scholars. Eight PhD theses in the field of education were chosen at random from Pakistan's three provinces and the capital city, and two supervisors were interviewed for triangulation. To give voice and meaning to the academic work, qualitative content-document analysis was used. Create a-Research-Space (CARS) framework developed by Swales (1990) was deployed as the basis of data analysis. Introduction chapters were examined in relation to the thesis as a whole to study the CARS moves and steps used by the scholars. In addition, two colleagues who were teaching at prestigious universities and also supervised PhD scholars were interviewed to verify and triangulate the trends that had emerged through the content analysis. The data show that the sparse moves and steps utilized in few of the eight theses have an impact on the quality of academic writing, thesis production, and on the worth of the research. The findings will assist supervisors as well as research students in the region to understand and implement suitable moves during the supervision process and engage in long-term academic writing.

Keywords: Academic writing, CARS model, higher education, introduction chapter, PhD thesis

Introduction

Halliday and Hassan (1976) in their seminal work on the use of cohesion in English opine that academic English is written in a particular form and refers to the prescribed style of expression, which includes formal tone, clear focus on the issue, use of third person, preciseness, and conciseness by using specialized vocabulary. This type of writing is linear and develops from a central point or theme incorporating facts and research to inform the readers regarding the topic under discussion. Several research on PhD theses produced in English have revealed how they are organized in general (Paltridge, 2002; Thompson, 2001), specific features, such as intertextual discourse (Bunton, 1999), position (Charles, 2003), modal verbs and in-text citation practices (Thompson, 2001, 2005), and other academic writing features.

Written academic discourse is inextricably tied to the dissemination and exchange of knowledge and information among individuals, groups, and members of the discourse community across institutions. The process of distributing knowledge within academic disciplines is hampered by linguistic and cultural disparities. This noteworthy circumstance has piqued the interest of many linguists, educators, and researchers from various disciplines to undertake intercultural study on written academic speech.

Learners at the university level require a heavy prescription of English for Academic Purposes (EAP) for their assignments and other academic related work; however, research illustrates that non-native speakers (NNS) need concentrated help as they have deficient knowledge at discourse and linguistic level (Paltridge & Starfield, 2007) as compared to native speakers (NS). At the same time, it has also been proved that the experiences and challenges faced by NNS and NS are not similar (Flowerdew, 2000; Swales, 2004). Furthermore, problems are encountered in organization of ideas, arguments, and counter arguments at macro-level of the thesis and at surface-level, which include mechanics and grammar and cause problems for the students (Allison et al., 1998; Shehzad & Abbas, 2015). The division into two mutually exclusive opposed groups has been considered challenging indeed (Flowerdew, 2000; Kubota & Lehner, 2004; Swales, 2004); however, problems with organizing and presenting findings are almost at the same level (Mišak et al., 2005). Although different universities develop

handbooks and guidelines for their students and supervisors for assignments and thesis, the books do not include choices that the students can make and neither do the manuals provide rationale for using a particular style.

Situation in hand

Pakistan has a chequered history of education policies; budget, curriculum, teacher training, language of instruction, and governance. It is a country where students come to class with one or more languages before they are introduced to English; notwithstanding the fact that the class level of introducing English fluctuates from class 1 to 6 with the change of each government. Such uncertainties and irregularities build up the anxiety level of the students, who want to pursue higher education, but lack linguistic abilities and rhetorical and academic genres when writing term assignments based on research work or thesis. Shehzad and Abbas (2015) term this as an ‘imposter syndrome’ which leads to ‘writer’s block’. There is a general assumption from the faculty’s end that the students in the universities should write clearly and with precision on research related topics, forgetting that even though writing is the most focused skill, it is the least developed among students in Pakistan at all levels of education. Nevertheless, English language is consciously associated with academic and professional success for students in all fields at tertiary level. The Higher Education Commission (HEC), Pakistan considering the in-house situation, has put in concerted energy to encourage quality and rigorous research by facilitating universities to increase the number of PhD candidates.

Purpose of the Study

What intrigued me to investigate the academic genre and rhetorical moves in theses was that the MPhil and PhD students who come to me for supervision although motivated, do not have the academic skills to use formal style of expression as well as devices or focus on the issues to put forth their ideas. Secondly, they lack the thought process to comprehensively state their objectives and use rhetorical strategies and other elements of academic writing to make their thesis a coherent piece of writing. In particular, there are no printed recommendations existing in a majority of the Pakistani universities for composing various researches, for

example, research articles, theses, and dissertations. (Shehzad & Abbas, 2016).

The discussion during the research consultations baffles my mind as the drafts are devoid of proper organization of genres and writing skills. Furthermore, writing a scientific work's opening is the most significant chapter in the thesis, and it has proven difficult for not only rookie authors and students, but also professionals as well as experienced authors (Gupta, as cited in Safnil, 2007). Flowerdew (1999) affirms that "The introduction chapter is challenging because it requires a persuasive style of writing in which the individual voice of the author(s) needs to come through" (p. 127). Swales and Feak (2012) strongly believe that in order to be able to write reader-friendly introductions, the students should engage in a broadly used organizational pattern, which is called rhetorical structure. These key issues propelled me to find out the reasons behind them. Swales (1990), Bhatia (1993), Connor and Mauranen (1999) and others in their studies have focused on the overall organization of genres by considering Create a Research Space (CARS) model moves, but a focused study on theses and theses introduction at PhD level has been limited.

Aim of the Study

The aim of this research study was to analyze the application of CARS model developed by Swales (1990), in the introduction chapters of eight PhD theses, selected from the official HEC website and to find out the academic/scientific writing and organizational skills used by the candidates. Chahal (2014) concedes that the CARS model has remained "The predetermined analytical tool in the examination of the introduction component of research articles" (p. 2). Golebiowski and Liddicoat (2002) maintain that CARS emerges as a central concept in Anglo-American academic writing. The model was created specifically for introductions, as this is the segment that is regarded as the most difficult (Flowerdew, 1999; Swales, 1990); it plays an important and significant role in showing the relevance of the research in hand to other research studies conducted in the same field; and illuminates the present research study in the knowledge base of the field (Loan & Pramoolsook, 2002). English as a Foreign Language (EFL) and English as a Second Language (ESL) writers as well as native writers are at the same wave

length. Paltridge and Starfield (2007) assert that “In fact it is the introduction that the writer makes claim for centrality or significance of the research in question and begins to outline the overall argument of the thesis” (p. 82).

Swales model (1990) has featured prominently to analyze the structure of research article introductions (Adnan, 2008; Kanoksilapatham, 2005; Shehzad, 2010); introductory section of conference presentations (Simpson & Swales, 2001); essays (Kusel, 1992); book reviews (Motta-Roth, 1998); different sections of theses at master’s level (Bhatia, 1993; Chen & Kuo, 2012; Samraj, 2008); MPhil theses (Shehzad, 2008, 2005; Shehzad & Abbas, 2015, 2016); PhD theses (Bunton, 2005; Kwan, 2006); and overall organization of genres (Connor & Mauranen, 1999; Swales, 1990), but a focused study on thesis introduction chapter has not been extensively explored globally and in Pakistan. Based on the 1990 model by Swales, an attempt was made to identify the research space that the writers had tried to allocate themselves through linguistic maneuvers to identify, review, and preview the content and the signals used for gap statements. The central question developed was: What structural elements of Swales (1990) CARS model can be applied to the organization of introduction chapters of PhD theses in the discipline of education, with special reference to Pakistan?

Review of Literature

The introduction of a research paper is the most critical and crucial segment in a thesis and is read with utmost care (Swales, 1990; Gupta, 1995) as it includes the purpose and summary of the thesis and therefore, takes a longer time to organize and write than the other chapters. It demands more preciseness in recognition of its importance in the thesis as it is upfront, which clearly states the problem and purpose of the research, research questions/hypotheses, and tells the readers what to expect in the thesis.

For the ESL writers, thesis writing issues may include inter alia attitudes to knowledge, values and culture, second-language academic writing, and identity. Students come from varied academic background where teaching and learning strategies differ at multiple levels of the study; thereby, affecting their understanding of the content and language.

The students on moving to tertiary level, shift from summarizing information to questioning, critiquing, judging, and synthesizing information; thus, generating novel knowledge and searching for new data and understanding (Jeyaraj, 2020).

Values and culture are attributes that the students should consider at the time of thesis writing. They should understand and realize to share the information that is important to their readers, display knowledge, highlight issues, draw boundaries that can be crossed, and the application factor (Kamler & Threadgold, 1997). Culture has its own unique stand when writing a literary academic piece (Loi & Evans, 2010) and contrastive rhetoric research compares academic writing patterns across languages and cultures, which has its origin in the work of Kaplan (1966). His research findings show that diverse languages and culture affect students' academic writing style. Kubota (1997) and Leki (1997) nullify the stance and debate that contrastive rhetoric culture tends to overgeneralize and oversimplify the role of cultural characteristics of writing style.

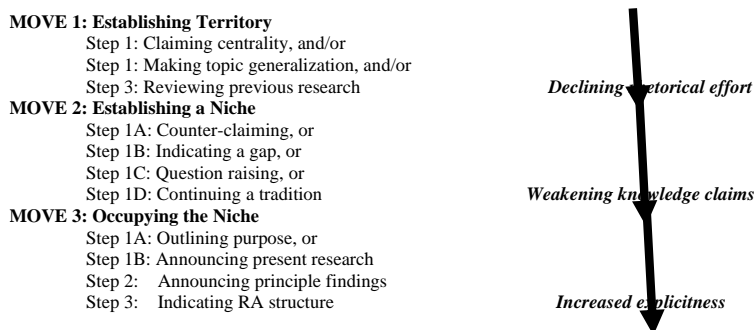
Theoretical Underpinning

The CARS (Create a Research Space) model by Swales (1990) was considered as the theoretical framework to identify moves and steps of the introductions from eight theses for this study. The model as a descriptive and analytical tool has gained world-wide acknowledgement since 1990s (Bunton 2002; Samraj 2002) and has been used extensively; validated and modified to analyze introductions for different genres. The Swales 1990 model is simple to understand and introduce to the students. It consists of three obligatory moves, which are broken down into optional steps for introduction chapters as given in Figure 1. Moreover, this model is flexible and accommodates evolving generic patterns and practices (Shehzad, 2005). This model was first proposed in 1981 to analyze moves and steps of research articles and later modified in 1990 and then in 2004. Bunton (2002) used Swales models to analyze generic moves for his study and added 10 new steps. In all, the moves remain the same, although the number of steps vary.

The model initiated a new concept of how the introduction for a research paper could be best structured and has since then become a capstone for the researchers. Golebiowski and Liddicoat (2002) endorse

that the model transpires as an important notion in a graphic form for English academic writing. This model has been used as an analytical tool to study the moves and step units in the Introduction sections of abstracts and articles to a large extent; however, its usage to analyze Introductions in thesis is limited. It should not be forgotten that the corpora for much of the study reports has been derived from the Western world, and has a comparatively weak presence in countries in the eastern hemisphere. This study has used theses at PhD level as the corpus to analyze the moves made in the Introduction chapters based on the CARS model by coding texts into moves and steps. It therefore, attempts to extend the discussion on the usefulness of the CARS model by applying it to analyze the data collected from the Introductory chapters of PhD theses in Pakistan.

Figure 1. Swales (1990), CARS model



As illustrated in Figure 1, the model suggests three obligatory moves, each entailing different optional and obligatory steps.; (a) establishing a territory-three steps, (b) establishing a niche-4 steps, and (c) occupying the niche-three steps for a recognizable text pattern to emerge.

Move 1 includes ‘Establishing a territory’ can be achieved through various topics selected for the research. It further defines the layout of the research territory by describing the situation and characteristics of the study area. This can be achieved by making use of various steps. Next follows Move 2, which is ‘Establishing a niche’ where the researchers present a gap by reviewing the literature, indicating how this can be filled in through justification and further investigation identified and discussed in Move 1. Research space is defined in terms

of the linguistic patterns embodied in the CARS model, that is, the expanse or breadth of the research territory negotiated, acknowledged or decreed through Move 2 and grounded in a depth of applicable items of previous research in Move 1. Move 2 also includes a mini critique (Swales, 2012) of the previous researches and points out the weaknesses and the new approach that the writer proposes to fill in the gap or extend the research further. Move 3 indicates the purpose of the research and how the niche or gap will be filled in by stating the purpose of the study, hypothesis, the research question and how the study will achieve its objectives as identified in Move 2. Establishing a niche is the most vital move where the need for the current research is indicated by linking it with the previous researches.

Methodology

The paper presents and discusses the findings of a small-scale qualitative research, deploying inductive exploratory case study approach. This is a precise procedure used to assess, uncover significance, achieve comprehension and advance empirical knowledge from printed and electronic documents (Cohen et al., 2018). The corpus was derived from HEC theses repository. The researcher randomly selected two theses each in the discipline of education from the provinces of Sindh, Punjab, Khyber Pakhtunkhwa, and the Federal Capital City, Islamabad. Theses from the province of Baluchistan were not available on HEC website, thus the corpus for the study was drawn from eight PhD theses. Since the selection of the theses was done randomly, two theses were from private universities and the rest were from public sector universities; five were written by male and three by female PhD candidates and the submission years ranged from 2015 to 2020. The writers were kept anonymous for confidentiality. In addition, two supervisors were interviewed individually to cull first-hand information to find out the support given to the PhD scholars during their thesis writing process. This also enabled the researchers to validate and triangulate the findings.

The Procedure

CARS model (Swales, 1990) was used to analyze the eight Introductions taken from eight theses. The rationale behind using this model was due to its extensive applicability across academic genres in diverse linguistic

settings, for example, non-Anglophone academic background. Eight PhD theses written between 2015 to 2020 in the discipline of education were selected from HEC online repository. The identity of the writers and supervisors was kept confidential. The procedure followed for conventional content data analysis was as follows:

The procedure for data analysis was adopted from Santa (2015) in which the first step was to separate the introduction chapters from the eight theses that were randomly selected, cluster and number the sentences in these chapters in each move and step of the CARS model to arrive at an approximation of the number of moves and steps attempted by the authors.

Each thesis was first numbered and then categorized according to the year of publishing. Since the coding was done manually due to a small sample size, the researcher used colored highlighters to separate the moves and the steps to make meaning of them. These were then shared with the team of researchers to reconfirm the codings. Common words, phrases, and sentences that emerged to indicate the steps in each move were also identified. First these were clustered and included under each step of the three moves of the model. Then rows that corresponded with the moves and steps in CARS model, missing moves, and a summary of moves for each introduction was extracted and marked. Such analysis produces excerpts, quotations of entire passages, which are then organized into themes and categories before they are synthesized to make sense of the data. This procedure for document analysis is also recommended by Bowen (2009). To achieve rigor and trustworthiness of the study, two colleagues who were teaching at prestigious universities and also supervised PhD research scholars were interviewed to verify and triangulate the trends that had emerged through content analysis.

Findings and Discussion

Eight theses. When formal aspects are considered, some differences arise between the corpora. The introductions presented a great deal of variability as regards to the length. The introduction chapters ranged from 8 to 20 pages with an average of 2000 words in each introduction chapter. All eight chapters had sub headings and the number varied with the length of the chapter. GEÇİKLİ (2013) articulates that the number of moves and steps also depend on the length of the chapter. A template was designed to fill in the data for the number of

moves used in the eight theses (Figure 2). The findings of the study were done by considering the moves and steps deployed by the research scholars in the eight theses. Figure 2 gives an overall picture followed by findings and discussion

Figure 2
Frequency of Moves in each Thesis

Thesis #	Move 1	Move 2	Move 3	Total # of Moves
1	4	4	6	15
2	4	4	5	13
3	4	-	7	11
4	3	-	3	6
5	7	4	7	19
6	5	3	4	12
7	4	-	3	8
8	2	-	2	5
Total	33	15	37	89

One of the most striking features of the study was that all moves took a linear progression, which concurs with the study conducted by Loan and Pramoolsook (2014). It was worthy to note that the moves in all theses were not considered religiously, and neither were the steps followed, whereas Swale confirms moves to be obligatory, and the use of steps flexible. Moves 1 and 3 were observed in all introductions; Move 2 was observed in five out of eight theses. This is indicated in Figure 2 that all introductions did not conform strictly to M1-M2-M3 structure. A strong variation with regards to the sequencing, spiraling, cyclicling and embedding of moves were observed. The unexpected short length of the introduction chapters in the theses for this research was also responsible for the limited number of cyclical sequences and

embedding of such moves. The detailed observations are mirrored in Figure 2 as follows:

Figure 3

Move 1

	Thesis 1	Thesis 2	Thesis 3	Thesis 4	Thesis 5	Thesis 6	Thesis 7	Thesis 8
Step 1	√	√	√	√	√	√	√	√
Step 2	√	√	√	√	√	√	√	√
Step 3	√	√	×	×	√	√	×	×

Step¹ Claiming Centrality

Step² Making topic generalization

Step³ Reviewing previous research

Move 1. In this rhetorical move, the writers are required to relate the studies conducted previously to that of the present study. As mirrored in Figure 2, all eight theses started with Move 1, which is establishing territory, but these were marginal, as 3 writers failed to claim a point by referring them to the previous studies. This could have been due to the difficulty in choosing the research area and assessing the scope of the research zone. It was also observed that the steps of Move 1 were repeated to establish conformity of the scope of the thesis. In fact, the writers were on the look out to make their texts more stimulating, vivacious, and pertinent to the discipline (Farnia & Barati, 2017; Shehzad, 2006, as cited in Sheldon, 2011). A study conducted by Swale (1990) acknowledges that such signals are limited to Move 1, as the study proves from the below given excerpts:

Latest researches have shown a measurably substantial association between the behavior of the primary leadership and efficient schools (Hayat, et al., 2016)
Models of teaching (Jamil & Hamre, 2018) undertake goal line alignments along with brain-based learning approaches.

More statements that existed in Move 1 include:

Flowerdew (1999) established the importance of....

Recently, there has been a misconception among the Western researchers that....
The study of ... has been studied in depth

The above statements embrace centrality of the authors regarding the study, whether it is useful, redundant, interesting, reviewing of previous research and so on.

Figure 4
Move 2

	Thesis 1	Thesis 2	Thesis 3	Thesis 4	Thesis 5	Thesis 6	Thesis 7	Thesis 8
Step 1A	√	√	√	√	√	√	√	√
Step 1B	√	√	√	√	√	√	√	√
Step 1C	√	√	√	√	√	√	√	√
Step 1D	√	×	×	√	√	×	×	√

Step^{1A} Counter claiming
Step^{1B} Indicating a gap
Step^{1C} Question raising
Step^{1D} Continuing a tradition

Move 2. Figure 2 shows limited moves in this category. Swales (2012) considers the second move, that is, Establishing a Niche functioning as a section having the mini critique. A marginal number of Move 2 indicates the low number of move instances (15), which may be due to the fact that the researchers failed to consider steps 1A, 1C, and 1 D as their reading was limited to identify the niche, gap or problem found in the previous researches. The authors of the theses may have found it difficult to understand the complicated structure of Introductions due to their rather low language proficiency and academic skills, as a result, their own study is presented in a less thorough manner (Gecikli, 2013). Another factor could be that the reading habits of the students are not developed right from the school level; secondly, due to limited availability of reading resources; and lastly, the grammar translation method used in the classroom prevents development of language skills (Koch & Spörer, 2017). Moreover, this method does not enable students to become

independent critical readers. Two candidates ignored Move 2 altogether, although Feak and Swales (2004) consider this move to serve the purpose of a hinge that joins Moves 1 with 3, that is, occupying the niche by linking it to the present research. This move also establishes the motivation level of the researchers to carry forward their study and fill in the gap. Swales (1990) identified few signals for this move, which were present in the eight theses, like:

Although the previous study suffers from....
Moreover, the controlled group could not catch up with the interpersonal skills of...

If noted carefully, the above examples include contrastive words to indicate a gap between the previous and the present studies. However, the eight theses included limited common signal words like moreover, although, but, and, also, etc.

Figure 5
Move 3

	Thesis 1	Thesis 2	Thesis 3	Thesis 4	Thesis 5	Thesis 6	Thesis 7	Thesis 8
Step 1A	√	√	√	√	√	√	√	√
Step 1B	√	√	√	√	√	√	√	√
Step 2	√	√	×	×	√	√	×	×
Step 3	√	√	√	×	×	√	×	√

Step^{1A}

Step^{1B}

Step²

Step³

Outlining purpose

Announcing present research

Announcing principle findings

Indicating RA structure

Move 3. Move 3 in the study totaled to 37 in all eight theses, which was filling in the gap for the present study. This emerged very abruptly without laying a firm ground to identify the niche in the form of research objectives, research questions and hypotheses, although it was present in all 8 theses. Few examples from the theses are:

Taking into consideration the problem of the study, the following questions and hypotheses emerged:

The purpose of the study was to examine the perceptions of teachers and students of education department regarding student bullying and its repercussions on organizational politics.

Move 3 usually includes several important steps, like sharing the objectives of the study, announcing the purpose, and summarizing the introduction and method to be used. The eight theses had abrupt and blurred eruptions of such steps and summarizing the chapter was almost missing.

Supervisor Interviews

Since the theses were downloaded from the HEC repository, the authors as well as the supervisors were not only spread throughout the country, but contacting them was almost impossible due to missing contact information. To verify the findings, two outside supervisors were contacted to throw some light on the findings. Both experts reflected and opined that the interest spark is at a low ebb in both the supervisors and the scholars. Secondly, the supervisors stall to play multiple roles of a coach, teacher, friend, colleague, trainer, counselor, and a guide in combination or simultaneously, depending on the needs of the scholars (Carter & Kumar, 2017). However, due to time constraints and limited requisite skills, they fail to build trust and understanding with their research scholars. Thirdly, limited academic language skills of the supervisors and scholars put a further dent in the quality of theses. Devos, et al (2017) advocate that the process of guidance and mentorship is essential to assist students to develop writing skills in the completion process. The interviewees admitted that the above factors highly contributed to the attrition rate and untimely completion of the theses.

One supervisor claimed:

“The supervisors claim that they know everything-content, norms of academic writing, language, ec, but I think that we are assuming. The HEC gives us go ahead signal to supervise PhD scholars..., but no practical training is given. Supervision is a skill and all are not good at it, so....”

She added:

“Supervision time mostly is not officially allocated. Universities either pay extra or reduce a course. Remuneration is not worth mentioning...you know that and due to shortage of faculty, reduced course is impossible.”

Another supervisor, who was extremely upset with the attitude of the supervisors and scholars vehemently put forth:

“I wasn’t supported by my supervisor as such and had to take online academic courses. Like in Australia, where I went for my post-doc, all supervisors get a license to supervise and this is renewed annually-workshops are offered.”

“Both parties procrastinate and are silent negotiators and then we part our ways. Join Phd groups on Facebook to realize the problems that the scholars have to go through. Supervisors try to avoid confronting. This is good for all of us...hmmm... and the scholars’ motto that finished is better than perfect applies very comfortably.”

When asked about the mode of feedback techniques they use, a supervisor exclaimed:

“University policy states that it can be physical or online or hybrid, so this arrangement suits me, I fear to go through their work as I am sure that it would be...language coherence-flow of ideas are few elements that are hardly in sight.”

Another supervisor added:

“Just like the scholars, I procrastinate going through the draft thesis. I mean I sometimes...most of the times don’t have time. I think I am to be blamed as well.”

The above comments tally with the present research findings, in which

the moves as well as the steps were missing, which gave a disconnected and incoherent look to the eight theses. This may attribute to the frivolous attitude of the scholars. This results in delaying thesis completion unnecessarily, or producing a feeble and frail thesis, or leaving the program. Many university authorities play a very despicable and passive role and fail to control the quality as only the number of graduates passed annually really matters (Chahal, 2014). Language also plays a relatively important role in the quality of the introduction genre. They enter the university with a minimum language proficiency as L2 or L3 learners and appropriate language courses are not offered (Shehzad & Abbas, 2016). Research findings indicate that the scholars of the eight theses failed to comprehend the structures and stances of Introductions in Move 2, due to their academic writing skills.

Conclusion and Recommendations

This study attempted to relay the importance of Introduction chapter in PhD genre and identify to what extent CARS model developed by Swales (1990) was adopted by the eight PhD scholars to display well-organized chapters for their theses in the discipline of education. The results proved that although the three moves of the model were considered to a large extent, the steps were not adhered to religiously due to the short length of the introduction. This corroborates with the findings of Abdulla (2016) and Fudhla, et al. (2014). The results of the document analysis also match with the interview findings, which reflect a huge communication gap between the two parties.

Although the corpora were limited for this particular study, it could be replicated for more valid and reliable findings by using different techniques and a larger sample size. Interviews with the research scholars and their supervisors could have opened new vistas in research findings. The innate needs of the students in terms of supervision and peer support, collaborative learning and workshops in the area of academic writing could benefit the scholars (Jamil & Hamre, 2018; Lee, 2017; Wilmot, 2018). Nonetheless, the findings of the present case study may broaden the perspectives of the research scholars as well as the supervisors to realize the importance of the use of academic genre in the Introduction chapters and the arrangement of content. It may also force them to develop deeper insights into the writing process in academic disciplines. The

findings will contribute to the genre of academic discourse particularly thesis writing; move analysis, authorial stance, and pedagogy. Academic support in the form of dedicated time and training are highly recommended. Davis et al (2016) endorse organizing doctoral writing retreat that could include specific skills development and how to establish a congenial relationship between the supervisors and the scholars. Although the findings of this small-scale case cannot be generalized, it is assumed that the results of the present case can provide useful information for similar situations and cases in other universities in the region and Pakistan.

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Item Analysis of Tool used for Examining the Effectiveness of E-modules for Academic Performance of 7th Grade Students

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Abstract

The main objective of this research study was to conduct analysis of test items for measuring quantitative characteristics (difficulty level, distractor efficiency & discrimination index) of research tool developed from the four units of general science of seventh (7th) class to be used as a test/tool for the research on “examining the effectiveness of e-modules for academic performance of students studying in 7th grade”. Tool was developed from the prescribed course of 7th class general science (Chemistry section). Data was collected from 240 students of 7th class. Researchers followed the procedure used by (Qamar, Kanwal & Nadeem, 2022). Items were analyzed for finding difficult level, discrimination index and distractor efficiency. Based on findings two test items (17 & 18) were eliminated & five (were revised because they have very small value of Diff. I (<29) and five test items (2, 17, 21, 22, 23) were revised due to less discrimination index. Thirteen distractors were revised and improved. As a result of item analysis five test items were eliminated & eleven items were refined and retained for data collection. Overall twenty five items could be used for data collection.

Keywords: *Item Analysis, Multiple Choice Items (MCQs), Difficulty Index (Diff. I), Discrimination Index (D I), Distractor effectiveness (DE)*

Introduction

Item analysis is a technique used to assess and evaluate the performance and quality of the developed test items in the form of MCQs. Learning cannot be enhanced without integrating assessment with teaching and learning process. The Assessment techniques used in Pakistan include Multiple choice test items, short questions, structured examinations based on SLOs. The potential to use any type of assessment is embedded in structure of curriculum and required competencies. Multiple choice test items is a type of assessment based on the hard work of teachers which make the students easy in attempting the answers. As suggested by Elgadal & Mariod (2021) MCQ items has the capability to test the students' different abilities such as problem solving, interpretation of data, cognitive thinking, critical thinking and curricular competencies in a very short time. But there are some constrains about item analysis. The results of research conducted by Elgadal & Mariod (2021) depicted that the item analysis in multiple choice test items has capability to measure the validity, reliability, its discriminatory efficiency, and technical anomalies for test item development. It was concluded that item analysis was able to determine the characteristic that why students under-performed and help in determining the root causes of this under performance. After improving the root causes effective and precise students' evaluation regarding competencies is ensured.

There is a range of abilities which are evaluated in psychometric domain but here in item analysis only three domains (items difficulty level, Discrimination index and distractor effectiveness) are evaluated. (Atalmış & Kingston, 2017). Further a question arises why we do item analysis. In answer to this question, we can measure the quality of teaching, understanding of teachers through students' answers regarding test items and parameters of options and answers given at the end of each question statement. Selection of options and answers by the students provide the basis of item analysis. In the view of Qamar, Kanwal & Nadeem (2022) as a result of conducting item analysis the use of this activity was to bring improvement in test items by revising, improving or discarding the items or distractors. Each one follows some underlying rules or principals. Most of the Pakistani schools, colleges and boards follow normal curve or

standard criteria for difficulty level, discrimination index and distractor efficiency for any test. In the same manner in experimental research achievement tests are used for measurement of academic achievement before and after the intervention. Item analysis helps in ensuring the criterion of the valid test items. According to standard normal curve 68.13% lies in the center of the curve whereas 15.87% lie on the left side and 15.87% lie at the right side of the normal curve. If results of the item analysis deviate from the said criteria, it becomes compulsory for the researcher or teacher to revise the test items. Most difficult items may be revised as a result of inferences made on the part of teacher, curriculum and student of structure of the test item.

This analysis was carried out for pretest and posttest for determining the effect of e-modules on the academic achievement of 7th class students studying general science. Teaching of general science was difficult to teach, and students reported that some concepts were very difficult to assimilate. Students had to study general science because general science was compulsory at elementary level. General science at middle level is a type of integrated curriculum with integration of Biology, Chemistry, Physics and Astronomy. Thirty (30) test items were developed from the section of Chemistry. Two test items were removed as a result of expert opinion. Twenty-eight (28) test items were used for item analysis. Item analysis is interesting for researchers because most of the science teachers and test item developers are less conscious regarding this process. There is one another reason that many developers rely on their expertise and experience. The work regarding item analysis is considerable in the fields of medical, engineering and higher education. But in Pakistan at elementary level this work (item analyses) is lacking. Researchers considered that it will be a novel work towards validity of test for excellent results to be used for research and future researchers.

Objectives

Objectives of this research study were to:

1. find out the difficulty level (Diff.I) of the MCQs test items of general science (Chemistry Section).
2. find out the discrimination index (D.I) of the MCQs of General Science (Chemistry Section).

3. find out the distractor efficiency (D.E) of the test items of general science (Chemistry Section)

Review of Literature

Item Analysis

The researchers tried to improve data collection instruments through a number of statistical techniques and tools. Test is a tool which is used to assess the achievement and performance of students for a particular content and subject. A test is collection of different test items. Item is a form of question where answer of a statement is sought through helping students by giving them clue in the form of options (Sharma, 2021). Out of these options one option is correct and other three options are distractors. Item analysis help the item developers to make the test items more useful and valuable. Item analysis is a system and set of systematic procedures used to evaluate the test items for their effective use in data collection. Items analysis can be analyzed in qualitative form where form and structure of the item statement, answer and distractors are examined through experts and experienced persons in relevant fields. Quantitative analysis was done by using statistical procedures to calculate their statistical properties.

As Popham (2002) & Trice (2000) stated that measurement and evaluation of students in certain area is an integral part of the learning and teaching. This assessment can be done through MCQs where items have power to measure the abilities of students for which MCQs have been developed. Item analysis is one of the best method to make the items valid and reliable. Item analysis can be done in three ways viz; difficulty index, discrimination index and distractor analysis. Items can be rejected, accepted or improved through difficulty index and discrimination index whereas distractors are selected or rejected on the basis of distractor analysis (Sharma, 2021). Distractor analysis is a process where we examine the students' responses in an individual test item. If an option is not selected by any student, it is assumed that option has no relevancy and hence is nonfunctional. As a result to include maximum distractors (options) which are functional?

According to Gronlund (1993), item analyses make us able to determine the item characteristics and for improving the quality of items.

Sim and Rasiah (2006), Zubairi and Kassim (2006) reported that through results of item analysis, teachers can make necessary changes in test items for making items effective for measurement of achievements of students during examinations Gupta , Singhand Singh (2009) viewed that item analysis is a process to assess the quality of test items as a whole. Botti, Considineand Thomas (2005) believed that test item analyses provide necessary information regarding validity and reliability of a test item.

Multiple Choice Items

Multiple choice items assessment comprises a stem (statement) and many options. Most probably each statement consists of three to five options depending upon the model used and objectives of the test items. In Pakistan generally, four options are used for one stem. These options contain correct answer called key, and other options are called distractors which are not correct answers but closely related to key or correct answer. These options are designed under rules i.e how these options may be arranged, the options may belong to one category and class etc. These MCQs are used extensively as a formative assessment and summative assessment tool and also for achievement tool in much experimental research. Cizek and O'Day (1994) reported that test Item (MCQ) mostly consists of a stem of question statement and a few possible answers called options. Out of all these options one option represents correct answer called key while other options are called distractors. Now a days MCQs items are used to measure higher order thinking skills such as critical thinking skills, analytical skills and interpretation skills in the framework of Blooms Taxonomy (Kumar, Jaipurkar, Shekhar, Sikri &Srinivas, 2021).

Multiple choice test items are very convenient and easy to attempt for students. A large portion of the science curriculum can be measured in very short period. They help efficiently in identifying the weaknesses and strengths of science students. They provide guidance to the teachers to improve their skills (Tan & McAleer, 2008). Properly constructed items can test HOTS of Blooms taxonomy (Carneson, Delpierre& Masters (2011). Multiple Choice Items are objective in nature and is source of minimizing the researchers/ teachers' biases (Vyas & Supe, 2008). All this

is possible only if the items have processed through the procedures of item analysis.

Difficulty Level/ Index (DIF. I)

Difficulty level/index of test items is essential component of item analysis, defined as the major proportion of students who select the correct options in a test item. If less number of respondents selects the correct options of key, then this test item is difficult. Difficulty index ranges from 00% to 100%. Difficulty level/index can be found by using this formula when 3rd part of high achiever and 3rd part of low achiever are selected out of the whole sample.

$$P = C/N \times 100$$

Here “P” represents difficulty index, “C” represents number of respondents who attempted right option/answer and “N” represents the total number of respondents/students.

Discrimination Index (DI)

Discrimination index (DI) is a domain of item analysis where it is calculated that how much an item discriminates between high achievers and low achievers. Range of discrimination index is from -1 to +1. Gujjar, Kumar and Rana (2014) define the discrimination index as “the ability of an item to differentiate between students of higher abilities and lower abilities”. Discrimination index can be calculated with the help of this formula:

$$DI = 2 (R_H - R_L) / R_H + R_L$$

Discrimination index value may be negative when low achievers are greater in numbers who select the correct answer.

Distractor & Distractor Efficiency (DE)

As discussed in MCQs each question statement has answers in the form of options. All options except correct option are called distractors. Distractors are wrong answers. Distractor analysis is done to assess, whether a student being tested is able to visualize difference in a test. A test developer must follow some rules while developing test items. And distractors are so closely related that it becomes difficult for a respondent to choose correct answer. Some researchers say that a good distractor attracts more respondents with low abilities. According to “Malau-Aduli

and Zimitat (2012)”, a distractor which is not attempted by any respondent is dysfunctional as it does not help to measure the educational objectives, is valueless for test item and has negative impact on learner. Mehta and Mokhasi (2014) stressed that distractors are essential component of a test item as it has a reasonable impact on the total test scores. Students’ performance is related to the design of the distractors. Distractors on the basis of their functions are categorized into two types. They are dysfunctional distractor (NFD) and functional distractor (FD). This division can be inferred on the basis of respondent’s responses. If an option is choiced by less than 5 % respondents (students), it is considered as dysfunctional/ nonfunctional/ ineffective distractor. Conversely if distractor is selected by more than 5% students, it is termed as functional /effective distractor. Muhammad, Tarrant, Ware (2009), Vyas,Supe (2008), & Patil and Patil (2015), suggested that the distractors/ options which are selected by more than 5% students are called functional distractors (FDs) and distractors/options which are selected by less than 5% students then it is called dysfunctional/nonfunctional distractors (DFDs/NFDs). Distractors can be represented in terms of percentage by this formula:

Distractors Percentage = $\frac{\text{Number of students who selected distractor}}{\text{total number of students}} \times 100$

Effectiveness of distractor or its efficiency ranges from (0-100) % and is determined on the basis of functional or dysfunctional distractors in an atom. Distractor Efficiency (DE) of an item with one key and three distractors can be expressed as 100%, 66.66%. 33.33% and 0% depending upon the number of dysfunctional distractors (DFD)

Previous Research

Research study conducted by Sharma (2021) on item analysis on B.Ed students in Nepal in 2020 on 27 students with 20 Multiple choice questions, difficulty level (Diff I), discrimination index (DI) and distractor analysis (DE). Three (3) items had Diff.I level between 0.20- 0.29, fourteen (14) items between (0.40-0.59), two (2) items between (0.60-0.79) and one (1) item had (0.80-0.89). The discrimination index of two 920 items was between (0.20-0.29), there was no item with discrimination index (0.30-0.39) and Eighteen (18) was greater than 0.40.Sharma found that there

were five (5) items with one dysfunctional distractor, fifteen (15) items with zero dysfunctional distractor.

Another research study conducted by (Agarwal, Burud and Nagandla, 2019) on 120 multiples choice questions. Sample for data collection was 113 students of “International Medical University, Malaysia” This study found that there were five (5) items were very difficult, twenty (20) items were good, forty-two (42) items excellent, and eighteen items easy and thirty-five (35) items were very easy. The Discriminatory efficiency found in this research was that there were forty-five (45) items with good discrimination, thirty-seven (37) with fair discrimination, twenty-three (23) showed poor discrimination and fifteen (15) items showed negative discrimination efficiency. In the same way there were forty-seven (47) items with no dysfunctional distractors, fifty-one items (51) with one dysfunctional distractor, eighteen (18) with two dysfunctional distractors and four (4) items with 3 dysfunctional distractors.

In Item analysis research conducted by Alam, Butt, Hassan, Konain, Mahjabeen and Rizvi (2018) on 65 test items (MCQs). Sample for this research was 110 students studying in 4th year MBBS programme at “Islamabad Medical and Dental College Islamabad” during the year 2017. The findings of this research study regarding difficulty level were varying. There was only one item very difficult, fifty-three (53) items difficult but acceptable and eleven (11) items were too easy. There were thirty-four items with excellent discrimination, fifteen items showed good discrimination, five items represented acceptable discrimination and eleven (11) items depicted poor discrimination index. It was found in this research that there were sixteen (16) items with zero dysfunctional distractors, thirty (30) items had one dysfunctional distractor, sixteen (16) with two DFD and three (3) items were with three dysfunctional distractors.

Research conducted by Boratne, Palve, Patil and Vell (2016) conducted a study with 30 MCQs on 22 students at research institute at Mahatma Gandhi Medical College. Total 30 keys and 90 distractors were analyzed. Average of difficulty level (Diff. I), discrimination index (DI) and distractor efficiency (DE) was 38.3%, 0.27 and 82.8% respectively. Eleven test items out of 30 showed higher difficulty index while five (5) showed difficulty easiness greater than 60. (Symbolically Diff. I of 11 test

items $>30\%$ & Diff.I of 5 items $> 60\%$). Discrimination index of 15 test items was very good. It was amazing that 16 distractors with percentage of 17.8% were found dysfunctional being selected by less than 5% respondents. Research on item analysis by Namdeo and Sahoo (2016) conducted on 25 MCQs. Data was collected from 76 students of medical at Kalinga Institute of Medical Science (KIMS) Bhubaneswar showed that Diff I of 8 test items with diff I $> 70\%$ were too easy, 14 items with diff I range (30-70%) were acceptable whereas 3 test items with diff I $< 30\%$ were too difficult. Discrimination index (D I) value of 12 test items >0.35 was excellent, range of DI of 3 test items (0.20- 0.34) and 8 test items was found < 0.2 . There was total 75 distractors, there were 22 test items with dysfunctional distractors, whereas 8 test items contained one dysfunctional distractor, 10 test items have two dysfunctional distractors and 4 test items contained 2 dysfunctional distractors (Namdeo & Rout, 2016).

Methodology

Design of the Research

Cross-sectional survey research design which is a type of descriptive research was used for this study. Researcher gathered primary data from the test which was used in research to find out the effect of e-modules on the academic performance of 7th class general science students. Researcher analyzed the data to do item analyses and to find the difficulty level (Diff I), discrimination index (DI) and distractor efficiency (DE).

Sample and Sampling Technique

Sample of two hundred and forty (240) students studying in 7th class in Islamabad Model Institutions under FDE, Islamabad from all students studying in 7th class during academic year 2022-2023. The sample was selected through multistage random sampling technique. First two sectors one from out of six sectors were randomly selected. In Second stage one school from each selected sector was randomly selected. In last stage 120 students studying in 7th class were randomly selected from each school. In this way test was administrated on 240 students.

Variables

Researcher developed 30 test items with four options (one correct options called key and three very close to correct option but wrong options called distractors in each test item) are major variables. Difficulty level (Diff I), Discrimination Index (DI) and distractor Efficiency (DE) are other variables of this study.

Data Tool and Source of the Data

The primary source of data was test which was developed from four units of general science (Chemistry Section) from class 7th curriculum for students studying in schools of Islamabad Capital territory. Data was ratio data. Test as a tool of collecting data was developed in the form of MCQs. Test was primarily validated by the experts and academicians.

Data Analyses & Results

All data were analyzed. Test was administered to 240 students, marked according to key. Tool contained 30 test items. Frequencies and percentages were used to calculate the item analysis. In first step marks of the students were arranged in ascending order and 240 students were split into three parts. Each part contained 80 students. Eighty students who got more marks and 80 students who got least marks were selected.

For analysis and evaluation of difficulty index/level of the test items researcher took help from the following table. Test items of general science (Chemistry section) from subarea of Chemistry were evaluated as “1” for correct answer and “0” for wrong answer and difficulty level (P) was calculated as per formula. Thirty test items were developed in the chemistry. This tool was presented to experts for validation. As a result of expert opinion test item no.1, 24 and 27 were eliminated due to ambiguity and repetition. Item number 24 was repeated. Remaining tool with 27 test items were administered to 240 students of class 7th. Marks were awarded to each student against each test item. Difficulty level was calculated for results. Detail is given in table 1

Table.1*Difficulty level (P) of 30-3=27 Items in the area of Chemistry*

S.No	C	N	P= C/N x100	P	S.No	C	N	P= C/N x100	P
1/17	66	240	66/240	27.75%	15/14	115	239	115/239	48.12%
2/18	64	239	64/240	26.78%	16/16	114	238	114/238	47.90%
3/5	92	240	92/240	38.33%	17/19	141	240	141/240	58.75%
4/8	90	238	90/238	37.78%	18/20	140	240	140/240	58.33%
5/9	73	240	73/240	30.41%	19/21	140	239	140/239	58.58%
6/15	72	237	72/237	30.37%	20/22	139	237	139/237	58.64%
7/23	93	240	93/240	38.75%	21/25	133	238	133/238	55.88%
8/2	119	239	119/239	49.79%	22/26	119	240	119/240	49.58%
9/6	122	240	122/240	50.83%	23/28	126	240	126/240	52.25%
10/7	134	238	134/238	56.30%	24/29	122	240	122/240	50.83%
11/10	137	240	137/240	57.08%	25/30	126	239	126/239	52.74%
12/11	121	239	121/239	50.62%	26/3	190	240	190/240	79.17%
13/12	120	240	120/240	50.00%	27/4	185	240	185/240	77.08%
14/13	118	239	118/239	49.37%	Total Sum of 1 to 27				1410.07
Average Difficulty Level of 27 test items									52.22
Total Sum after removing item no 17,18 (too much difficult)									1355.54
Average Difficulty Level after exclusion of item no.17,18									54.22

Table 2*Evaluation and Recommendation about difficulty index (Diff I)*

S.N.	Difficulty Index	N	Item Evaluation	Recommendation
1.	>0.30	2	Very hard/ Most difficult	Eliminated
2.	0.30-0.39	5	Difficult	Revised and improved
3.	0.40-0.59	18	Moderately difficult	Kept and sustained
4	0.60-0.79	02	Easy	Kept
5	.080-0.89	00	Too easy	-----

From the table 1, item numbers 1, 24 & 27 were removed as a result of first review of experts. Table.2 represents that there are two test items 17 & 18 with very high difficulty level. There are five (5) test items 5, 8, 9, 15 & 23 were difficult and were revised. There were 18 test items viz 2, 6, 7, 10,11,12,13, 14, 16, 19, 20, 21, 22, 25, 26, 28 & 30are which were

moderately difficult and sustained. Only two test items 3 & 4 were found easy. There was no item found to be very easy.

Table.3

Discrimination Index (DI) for the tool (Test of Chemistry)

S.N	R _U	R _L	Formula= $2(R_U - R_L) / (R_U + R_L)$	D I	Interpretation
1	52	27	$2(52-27)/80+79$	0.31	Discriminating items, good items
2	65	60	$2(65-60)/80+80$	0.06	Marginalized test items with minor discrimination
3	70	49	$2(70-49)/80+80$	0.26	Moderately discriminating, fair items
4	46	13	$2(46-13)/80+80$	0.41	Very discriminating, very good item
5	65	12	$2(65-12)/80+80$	0.66	Very discriminating, very good item
6	64	22	$2(64-22)/80+80$	0.53	Very discriminating, very good item
7	49	8	$2(49-8)/79+80$	0.52	Very discriminating, very good item
8	31	14	$2(31-14)/80+80$	0.21	Moderately discriminating, fair items
9	66	22	$2(66-22)/80+80$	0.55	Very discriminating, very good item
10	59	19	$2(59-19)/80+80$	0.50	Very discriminating, very good item
11	53	19	$2(53-19)/80+39$	0.43	Very discriminating, very good item
12	50	19	$2(50-19)/80+80$	0.39	Discriminating items, good items
13	52	21	$2(52-21)/80+79$	0.39	Discriminating items, good items
14	39	5	$2(39-5)/79+80$	0.43	Very discriminating, very good item
15	54	21	$2(54-21)/79+79$	0.42	Very discriminating, very good item
16	38	6	$2(38-6)/79+79$	0.41	Very discriminating, very good item
17	28	13	$2(28-13)/80+80$	0.19	Marginalized test items with minor discrimination
18	57	39	$2(57-39)/79+80$	0.23	Moderately discriminating, fair items
19	58	35	$2(58-35)/80+80$	0.29	Moderately discriminating, fair items
20	58	29	$2(58-29)/80+80$	0.36	Discriminating items, good items
21	54	41	$2(54-41)/80+80$	0.16	Marginalized test items with minor discrimination
22	33	23	$2(33-23)/79+79$	0.13	Marginalized test items with minor discrimination
23	50	37	$2(50-37)/80+80$	0.16	Marginalized test items with minor discrimination
24	52	27	$2(52-27)/80+80$	0.31	Discriminating items, good items
25	61	24	$2(61-24)/79+80$	0.47	Very discriminating, very good item

26	60	19	2(60-19)/80+80	0.51	Very discriminating, very good item
27	61	24	2(61-24)/79+79	0.47	Very discriminating, very good item

Table 4

Evaluation and recommendation of discrimination index (Chemistry)

S.N	DI	N	%age	Evaluation	Recommendations
1.	Negative	0	0	Worst/ defective item	Discard
2.	> 0. 20	05	18.52	Not discriminating item, marginal item	Revised / Discarded
3.	0.20- 0.29	04	14.81	Moderately discriminating, fair item	Kept/Sustained
4.	0.30- 0.39	05	18.52	Discriminating items, good items	Kept/Sustained
5.	≥ 0.40	13	48.15	Very discriminating, very good item	Kept/Sustained

Table.4 depicts that there are five items which showed no discriminatory index with less than 20% DI. This means they were too hard and needed extensive revisions. All were revised. There were four test items which were moderately discriminating and were revised also. All other 18 items were retained out of which five items had discriminatory value between 0.30-0.39 and other thirteen items had discriminatory index value greater than 0.40.

Table5

Distractor Analysis from three distractors and one answer (Chemistry Section)

S.N	N (R.R)	Option A	Option B	Distractor C	Distractor D	Correct
½	239	119(49.79%)	55 (23.01%)	51 (21.34%)	14 (5.85)	A
2/3	240	13 (5.41%)	190 (79.17%)	17 (07.08%)	20 (8.33%)	B
¾	240	185(77.08%)	30 (12.5%)	13(05.41%)	12(5.0%)	A
4/5	240	81(33.75%)	45(18.75%)	92 (38.33%)	22(9.17%)	C
5/6	240	72(30.00%)	20(8.33%)	26(10.83%)	122(50.83%)	D
6/7	238	65(27.31%)	134 (56.30%)	19(07.98%)	20(8.40%)	B
7/8	238	85(35.71%)	41(17.23%)	90 (37.82)	22(9.24%)	C

8/9	240	70(29.17%)	64(26.67%)	73 (30.43%)	33(13.75%)	C
9/10	240	57(23.75%)	27(11.25%)	137 (57.08%)	19(07.92%))	C
10/11	239	35(16.64%)	121 (50.62%)	52 (21.76%)	31(12.97%)	B
11/12	240	39(16.25%)	120(50.00%)	3715.42%	44(18.33%)	B
12/13	239	75(31.38%)	25 (10.46%	21(07.79%)	118 (49.37%)	D
13/14	239	83(34.72%)	115(48.12%)	20 (8.36%	22(9.20%)	B
14/15	237	67(28.15%)	62(26.05%)	72 (30.38%)	37(15.55%)	C
15/16	238	46(19.33%)	114 (47.90%)	54(22.69%)	26(10.92%)	B
16/17	240	92 (38.33%)	72 (30.25%)	10 (04.20%)	66 (27.50%)	D
17/18	239	78(32.64%)	64 (26.78%)	86 (35.98%)	11(4.6%)	B
18/19	240	141(58.75%)	41(17.08%)	32(13.33)	26(10.83%)	A
19/20	240	140(58.33%)	51(21.25%)	25(10.42%)	24(10.00%)	A
20/21	239	47(19.66%)	140 (58.58%)	31(12.97%)	21(8.79%)	B
21/22	237	17(07.17%)	53(22.36%)	28(11.82%)	139 (58.65%)	D
22/23	240	93(38.75%)	57(23.75%))	51(21.25%)	39(16.25%)	A
23/25	238	19(07.98%)	21(8.82%)	65 (27.31%)	133 (55.88%)	D
24/26	240	30(12.50%)	3715.42%)	54(22.50%)	119 (49.58%)	D
25/28	240	52(21.67%)	126 (52.50%)	31(12.92%)	31(12.92%)	B
26/29	240	122(50.83%)	67(27.92%)	23(09.58%)	28(11.67%)	A
27/30	239	23(09.62%)	27(11.30%)	63(26.36%)	126 (52.72%)	D

Primarily thirty (30) test items were developed from chemistry section of class 7th general science. First, this test (tool) was validated from three experts. After this process three test items were removed from the tool and five test items were improved. After this item analysis was conducted for remaining twenty-seven (27) test items. There were three distractors for each item and one answer for each item. Total numbers of distractors were eighty-one (81) in this tool along-with twenty-seven correct answers. It was found that there were two distractors with less than 5% distractor efficiency. One was distractor “C” in item number 16/17 and second was distractor “D” in item number 17/18. These two test items were removed as they had high difficulty level and distractors with less than 5% DE were not possible to be replaced with any other distractors hence removed from the main tool. According to Hingorjo & Jaleel (2012) the

distractor selected by respondents (students) less than 5% has very low effectiveness, hence may be revised or removed because it affects the quality of overall test item. Qamar, Kanwal & Nadeem (2022) recommended that distractors with less than 7% efficiency may be considered for revision. So, in this analytical study distractors with less than efficiency was revised and improved. There were eleven distractors with less than 10% efficiency.

Distractor “A” & “D” in item number 2/3, distractor “D” of item 3/4, distractor “D” of item 4/5, distractor “B” of item number 5/6, distractor “C” & “D” of item 6/7, distractor “C” of item 13/14, distractor “D” of item 20/21, and distractor “A” of item 23/24 were dysfunctional. These eleven distractors were revised and improved. Further items numbers 3/4, 4/5, 5/6, 13/14, 16/17, 17/18 & 20/21 had one distractor. But item numbers 2/3 & 6/7 had two distractors with less than 10% distractor efficiency. Overall, thirteen distractors were so called dysfunctional out of which eleven were improved but two were eliminated.

Discussions and Conclusion

One of the techniques in ensuring quality of education is through measurement and evaluation. In the same way there are many techniques and processes for quality assessment and one of them is item analysis. MCQs test items is the best tool for measurement of cognitive abilities and performance of the students (Hingorjo& Jaleel, 2012). The tools and techniques to find out the characteristics and quality of test items frequently used are difficulty index (Diff.I), discrimination index (DI) and distractor efficiency (DE). In this study the most difficult test items have difficulty level less than 30% and were only two test items. In the same way revision of those test items was done which had DI value >0.20. there were five test items whose DI value was less than 0.20. Distractor analysis is done to ensure the quality of distractor. The tool which had maximum functional distractors are acceptable to be accurate for measurement and assessment. According to Hingorjo& Jaleel (2012) the distractor selected by respondents (students) less than 5% has very low effectiveness, hence may be revised or removed because it affects the quality of overall test item. Qamar, Kanwal & Nadeem (2022) recommended that distractors with less than 7% efficiency may be considered for revision. In this study

all those items were revised and improved which had distractor efficiency less than 10%. It is concluded that out of thirty test items five test items were totally removed, eighteen test items were retained but seven test items are revised. Finally, twenty-five test items were used for the quality results.

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Schools in Nigeria: An Assessment of Water, Sanitation, and Hygiene in Sokoto State

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Abstract

The aim of this study is to assess the level of water, sanitation, and hygiene services in public secondary schools in Sokoto, state Nigeria using a survey of 120 student-teacher respondents determined using Raosoft Calculator. The study design was descriptive survey that allows the researcher to have an in-depth understanding of perception of the respondents. The sample size was calculated using a Raosoft calculator. The outcome of water services supplies at public secondary schools in Sokoto state, Nigeria divulged an overall basic service as 25.0%, the limited services recorded are 25.0%, and no services were recorded in 50.0% of the schools. Survey on level of sanitation has shown that 40.0% have basic sanitation, 20.0% have limited sanitation, and 40.0% have no sanitation services at all. The result showing the level of hygiene services indicates that, the secondary schools surveyed have 8.3% hygiene services, 25.0% have limited hygiene services, and 66.7% of the schools have no hygiene services at all. From this study, it has indicated that there are significantly poor wash services in public secondary schools in the state, and in turn could pose public health problems to the school actors (especially the youngsters, girls and women teachers), the surrounding public, and the entire society at large.

Keywords: *Infectious diseases, chronic diseases, toilets, malnutrition.*

Introduction

The practice of persistence water, sanitation, and hygiene (WASH) behaviors are needed to reduce the tendency of contamination that occur due to fecal materials and in turn help in improving the health of children and adults in the society (Winter et al., 2021). Therewith, there is need for imbining the provision of WASH infrastructures and behavior change strategies. However, there is still a noticeable problem regarding the WASH progresses in the Africa and Sub-Saharan regions of Africa; that is why school-based WASH programs are out there to serve as a platform that spread the health promotion efforts to the larger audience to increase awareness and practice in the society. The program indeed takes students as good ambassadors that are supposed to massively relate the good WASH policies to the larger society at home (Winter et al., 2021). An act of providing safe water, sanitation, and hygiene at schools is influential in improving health, boosting education, promoting gender equity, and consequently impacting positively in the society at large. It is indeed a key method that provides rights to students, that is provision of right to health, and the right to clean environment, and the right to education as well (Olukami, 2013).

On the other hand, education is the ingredient for any development. Therewith, secondary school is the fulcrum in the education system that formed a relay between primary and higher education. Secondary school education is ideally received by students after completing their primary education with a view to gain a perquisite for advanced education that will resurfaced ahead. The system of secondary school is framed to provide smooth opportunities to primary school graduates to obtain advanced education irrespective of their affiliation, religion, sex, etc.; to diversify curriculum to cater for diverse talents of students; to elicit students with the desire for achievement and self-improvement; to foster national unity and self-reliance in students, to churn-out students that will be modified into different professionals in the advance institutions (Bello et al., 2017; Ibrahim et al., 2017; Nanbak, 2020). Schools are a significant portion of any community constituting an avenue that houses at least 18% of every population.

School is an environment that is a first contact of children with the surrounding that takes much time of the children away from home.

Therein, children spend many years learning, growing and developing to reach the adulthood. A healthy youngster has more potential to attend, and finish schools as well (Jiya et al., 2020). However, some reports from developing nations such as Nigeria has been negative about the achievement of WASH in schools. Many (secondary) schools are in deplorable state, some having no WASH indicators at all; and most of the available data on WASH focuses on the households no other avenues like schools, despite the schools been very significant to children/ students. Schools held a crucial role in the life of children and youngsters that when there are bad indicators of WASH, a chain of disease transmission could be improved and schools become fruitful avenue for transmission of diseases (Olukami, 2013). Enough hazards can emanate from schools to pollute the entire environment at the societal levels, likewise, presence of WASH at schools is in tandem with attendance and performance of students; consequently, it is utmost to have proper WASH at schools (Olukami, 2013).

The assessment of WASH at schools is indeed a portend to policy makers to determine how to manage WASH and make new policies to remedy water-related issues in the entire society, because schools are avenues for socialization that needs highest water quality services to save lives of children and youngsters especially those before the age of five (Tolubrkov et al., 2022). Poor WASH endanger the education of youngsters, especially the females that often left schools for a bid to defecate in the bush, and are often harassed or undignified due to lack of WASH at schools (Sridhar et al., 2020). Young people are more vulnerable due lack of WASH especially in developing nations that are characterized with high morbidity and mortality due to water-related problems under the age of five, all due to poor WASH that has directly spurs open defecation and its consequences (Sridhar et al., 2020; Mustapha et al., 2022).

Therefore, WASH in schools has to be of great concern in a region of Sokoto, a place that is situated in the semi-arid region known with pathetic rainfall variability, drying of waterbodies, water scarcity, poverty, and other unsuitable climatic conditions that have further devastated the issues causing a double burden of diseases (Mustapha et al., 2022). Therefore, it is indeed imperative to utilize efforts aimed at harnessing the health of youngsters at school especially in Sokoto to give them potentials to learn

and lead a productive life in the future in a state that is statistically disadvantaged with low literacy level. Focusing in improving actions that promote children's health is vital to achieving completion of basic schools, improving health of community, and better future for the state and country at large (Okediji, 2015; Gado and Alkammawa, 2017; Yamma, and Izom; 2018; Jiya et al., 2020). Additionally, the situation in many schools especially the public ones are faced with lack of infrastructures and other relevant resources needed at a proper learning environment despite the tangible reports showing how school environment influences successes or failures of education (Inuwa, and Yusof, 2012; Inuwa, and Yusof, 2014; Dange and Dange, 2019; Abubakar et al., 2022). A preliminary surf shows very few studies had worked on WASH in Sokoto state, let alone among secondary schools, therefore it is imperative to fill the gap therein (Mustapha et al., 2022). The aim of this work was to assess the levels of WASH services in public secondary schools in Sokoto. The research questions are: 1. What is the level of water services among secondary schools in Sokoto state, Nigeria? 2. What is the level of sanitation services among secondary schools in Sokoto state? 3. What is the level of hygiene services among secondary schools in Sokoto state?

Literature Review

Due to OD or lack of sanitation millions of school-children suffered episodes of diarrhea. When diarrhea strikes, children become dehydrated and more vulnerable to infection, which can be deadly sometimes. Children who suffered repeated bouts of diarrhea, undernutrition, can be malnourished and stunted (Bello et al., 2022). Malnutrition and stunting are responsible for reducing the intelligence quotient of students. Apart from diarrhea other diseases that are transmitted by OD are: topical enteropathy, polio, typhoid fever, Ascariasis, dysentery, trachoma, bookworm etc. When children fall sick, they avoid schools (Bello et al., 2022).

Inadequate school toilets or open defecation is a risk to children's safety. More especially, girls are vulnerable to violence and bullying from classmates and adults (Bello et al., 2022). Having to defecate in the open infringes on human dignity and safety of the school children. Specifically, women and girls are liable to lose privacy and face having to defecate in

the open, or have to painfully wait until night falls in the school. Lack of toilets or an accessibility to women or girls during menstruation, they remain excluded from opportunities to attend school (Bello et al., 2022).

Boys or girls or women without toilets have to travel to public toilets (in some distances) or bushes. This in turn, increases their chances of being attack by others (Bello et al., 2022).

Due to lack of toilet or sanitation, children struggle to complete their education. They are face with related diarrhea; they miss school, and fall behind in class. Practice of OD by children due to lack of toilet at schools can lead to anxiety and stress. In turn discouraging children from attending classes. Lack of sanitation tends to force girls to stay at home or seek for toilets or private space at far places. This increases absenteeism and drop-outs (Bello et al., 2022).

Research Questions

The following research questions were formulated to investigate the study:

1. What is the level of water services among secondary schools in Sokoto state, Nigeria?
2. What is the level of sanitation services among secondary schools in Sokoto state?
3. What is the level of hygiene services among secondary schools in Sokoto state?

Rational of Study

There is need for water, sanitation (toilets), and hygiene (water and soap for handwashing) to scuttle the chain of disease transmission. When any of the three parameters is absent, disease can spread easily especially in children, girls/ women and youngsters easily. Consequently, leading to hospitalization, malnutrition, poor academic performance, morbidity, indignity, school absenteeism, and the likes; therefore, it is pertinent to carry out this study to examine the level of the said parameters in secondary schools in Sokoto, Nigeria (a state suffering from poverty, poor western literacy, malnutrition, poor state of basic education, and other inequalities) (Bello et al., 2022).

Figure 1

How OD Causes Problems, adopted from Bello et al. (2022)

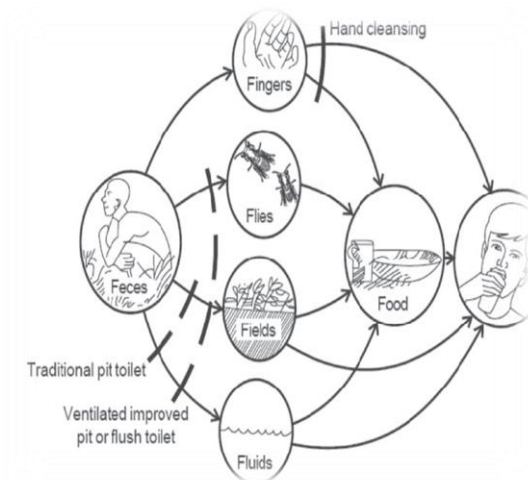


Figure 2

Faeces Flow Diagram of Open Defecation due to Poor WASH, Adapted from Bello et al (2022)



Significance of the Study

The study, will benefit policy makers in knowing how far has gone in delivering dividends of democracy to the citizens to know how far have they gone? It is also important to advocates, educators, donors, and people of the community to be alerted on the very important factor of poor infrastructure that affect the education of their wards with a view to come up with community-based solutions. Researchers will find this work useful as a baseline data that can be further validated or harnessed to save our education sector.

Methodology

Study Area

The study was carried out in Sokoto state, Nigeria. Sokoto State is located at the extreme Northwest corner of Nigeria, it lies between latitudes 11°E and longitude 4°N bounded in the East by Zamfara State, in the North by Niger Republic and in the west by Kebbi State. It is within the savannah region with scanty vegetation and shrubs. Two intermit rivers cut across the State i.e. River Sokoto and River Rima with a confluence at Wamakko, move southwest and finally discharge into River Niger (Mustapha et al., 2022).

Research Design

The study design was descriptive survey that allows the researcher to have an in-depth understanding of perception of the respondent (Nasiru *et al.*, 2015)

Target Population and Sample Size

The population includes students that are in the School of Science, Shehu Shagari College of Education Sokoto, Nigeria, particularly these that study Biology as a course at Nigeria Certificate of Education level. The size was calculated using a Raosoft calculator at a margin of error of 5%, 95% confidence limit, 177 population size of secondary schools (Ministry of Education Sokoto in 2010 related that there are 177 Junior Secondary Schools in the state) in the state, and a response distribution of 100%. 120 respondents that are NCE student-teachers that have done their teaching practice or are currently doing it were employed using simple random

sampling because qualitative data focus on quality not the much quantity provided saturation is anticipated (Nasiru, 2015).

Data Collection and Analysis

Data was collected with the aid of semi-structured questionnaire, and tape recorder where necessary. The questionnaire was developed based on the WHO/UNICEF Joint Monitoring Program guidelines for assessing WHASH at schools. The data collected was analyzed using content analysis, descriptive statistics were yielded.

Results & Discussion

Table 1

Result showing the demographic characteristics of respondents surveyed in secondary schools in Sokoto state, Nigeria

Item/ Parameter/ variable	Frequency	Percentage
Age		
21-24	120	100.0
Sex		
Male	40	33.3
Female	80	66.7
Religion		
Islam	120	100.0
Tribe		
Hausa/ Fulani	120	100.0
Level of education		
National Certificate of Education (NCE)	120	100.0
Marital status		
Single	40	33.3
Married	80	66.7

Table 1 shows the demographic characteristics of the respondents’ student-teachers in this study. Majority are females (66.7%), and minority (33.3%) are males; all are between 21-24 years (100.0%); and all (100.0%) are Muslims, all (100.0%) are Nigeria Certificate of Education holders/ students; and Hausa/ Fulani (100.0%). Majority are married (66.7%), and minority of them are single (33.3%). Therefore, the respondents are from both sexes and student-teachers that visit schools routinely can be able to know the nature of their toilets and their sex-specifications, a valid data has to be tap from them as the subjects of the study.

What is the level of water services among secondary schools in Sokoto state, Nigeria?

Table 2
Revealing the outcome of water services supply survey at public secondary schools in Sokoto state, Nigeria

Service level	Service/ nature of observation	Frequency	Percentage
Basic service	Presence of basic service of drinking water from an improved source and water availability at the time of the visit	30	25.0
Limited service	Presence of drinking water from an improved source or no water available at the time of the visit	30	25.0
No service	Drinking water from an unimproved source or no water is available at the time of the visit	60	50.0

Total	120	100.0
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The table 2 has revealed the outcome of water services supply at public secondary schools in Sokoto state, Nigeria. Therein, the overall basic services recorded were 25.0%, the limited services recorded are 25.0%, and overall no services were recorded in 50.0% of the schools. The findings of the water supply survey have revealed a poor status in majority of the areas. This has been in consistent with what was divulged by Mustapha et al (2022) in their recent study of WASH awareness and practices in Sokoto (albeit most of the subjects therein are from Sokoto central zone) with a major water source from an unprotected hand-dug well. Thus, seeing a poor water services in the schools is relevant to a poor water services in the society at large. Access to water, sanitation and hygiene is a basic human right and necessity that every human being supposed to have, let alone the youngsters and the girls/ women in particular. Shortage of safe water has been significantly implicated as the cause of high rate of many infectious diseases like diarrhea, trachoma, polio, acute respiratory infections, malnutrition and many other problems.

However, there are still millions of people that are using unsafe water, and some even suffer to access the unsafe water types; likewise, millions of people are unable to have access to sanitation and hygiene and have to indulge in open defecation (even at schools) that further deteriorates the scarce water resources available and escalates spread of infectious diseases leading to high morbidity and mortality especially among children and women/ girls (Mustapha et al., 2022). More often, the issue of water scarcity or unsafe is more pronounced in the regions like Sokoto where the climate is semi-arid due to extreme water variability, climate change, poverty, low public education etc (Mustapha et al., 2022). In a similar streak, another study from Kaduna state, Nigeria that assess the conditions of educational facilities shows that 88.0% of the schools do not have water supply (Kanayochukwu et al., 2020). In a similar episode indicating water scarcity in the state, on 29th 2013, the students of Usmanu Danfodiyo University Sokoto protested against water scarcity in the University until the management had to closed the institution immediately and indefinitely to abate destruction of facilities of the university and save lives from attacks.

This has shown how lack of water can deleteriously affect education in the state (Magami & Ibrahim, 2016). Haply, showing that, the issue of poor water supply to schools is a well-versed challenge in the region of Northwestern part of the country. Particularly, water is tied to life, air, food, industries, and agriculture. Indeed, water is an abundant natural resource that is scarce in many areas of the world and can easily be subjected to pollution; therein, Sokoto is facing water scarcity and poor educational status especially due to poor water and education policies, because the state is bestowed with abundant water sources (Magami & Ibrahim, 2016).

Among the other uses of safe and accessible water in schools is to halt the chain of disease transmission of diseases among children to allow them take in safe food (made from safe water), take bath with safe water to avoid skin diseases and confer personal hygiene, and wash hands always when in contact with contaminants, waste, chemicals in the laboratory, and avoid fecal. When there is an inability of the children to have safe and enough water chain of diseases transmission is improved leading to sicknesses, malnutrition, hospitalization, poor performances, absenteeism, and even morbidity or death. Teachers and other school actors are protected against diseases when there is safe and enough water at schools (Mustapha et al., 2022).

What is the level of sanitation services among secondary schools in Sokoto state?

Table 3
Showing the results of the survey pertaining sanitation services among public secondary schools in Sokoto state, Nigeria

Service level	Service/ nature of observation	Frequency	Percentage
Basic service	Improved sanitation facilities at the school that are single-sex and	48	40.0

	usable at the time of the visit		
Limited service	Improved sanitation facilities at the school that are not single-sex or not usable at the time of the visit	24	20.0
No service	Unimproved sanitation facilities or no sanitation facilities at the school	48	40.0
Total		120	100.0

As far as sanitation is concern is mostly talking about the toilet services in the area of the study. Table 3 has displayed the survey on level of sanitation services in secondary schools in Sokoto and has shown that 40.0% have basic sanitation, 20.0% have limited sanitation, and 40.0% have no sanitation services at all. This has shown a submission of poor service of sanitation among the secondary schools in the state, similar to what was reported by Mustapha et al. (2022) that 78.9% of the households in the state practice open defecation and poor fecal waste disposal, due to poverty as a major factor. Consequently, the situation has led to diarrhea and malaria, and dysentery been common in the area as reported by Mustapha et al (2022). Kanayochukwu et al. (2020) from a study in Kaduna state, Nigeria found that, no fewer than 24% of the observed schools have toilet facilities at all, not minding their accessibility (Kanayochukwu et al., 2020).

A primary school study in the Sokoto Metropolis observed by Abubakar & Raji (2021) has shown that only 27.5% of the schools had basic sanitation services. A similar trend of toilets in secondary schools in Bayelsa state has revealed toilets being in deplorable states in majority of the schools observed by Ogbuehi et al. (2020). The essence of sanitation, that connotes toilet in this work cannot be over-reiterated. It is a tool that ensures complete separation between man and human excreta, thereby preventing diseases. When there is no improved toilet, disease transmission will be

ensured, and children will be more affected. They have to leave classes during sickness, they can be malnourished due to parasitic worms, they can have poor academic performance as well and other effects that affect education resultantly.

What is the level of hygiene services among secondary schools in Sokoto state?

Table 4
Showing the level of hygiene services among public secondary schools in Sokoto state, Nigeria

Service level	Service/ nature of observation	Frequency	Percentage
Basic service	Handwashing facilities with water and soap available at the school at the time of the visit	10	8.3
Limited service	Handwashing facilities with water but no soap available at the school at the time of the visit	30	25.0
No service	No handwashing facilities or no water available at the school sanitation facilities or no sanitation facilities at the school	80	66.7
Total		120	100.0

Hygiene services are referring to availability of water and soap or relations in the toilet premises to wash hands or relations in the course of using the toilets (Sridhar et al., 2020). Table 4 is showing the level of hygiene services among secondary schools in Sokoto state, Nigeria. Therein, the secondary schools surveyed have 8.3% hygiene services, 25.0% have limited hygiene services, and 66.7% of the schools have no hygiene services at all. This has shown a poor level of hygiene, in relevant to what was reported by Mustapha et al (2022) from Sokoto. Therewith, it has reported 82.5% poor hygiene practices by households and 55.6% do not use water and soap to wash hands after toilets (Mustapha et al., 2022). An assessment of school health services in the primary schools in the Sokoto Metropolis has revealed only 7.5% hygiene services in all schools observed by Abubakar & Raji (2021).

In another study performed among secondary schools in the Bayelsa state, a Southern part of the country, it was found that majority of the subjects had no hygiene services/ practices; therewith, 53.5% of the students do not use soap after toilet, and 57% do not have accessibility to water. This has been in tandem with negative (in which the toilets/ latrines are deplorable in most cases and had no handwashing facilities or soap) findings revealed in table 4 (Obguehi et al., 2020).

Moreover, a study from Lagos city had found that availability of hygiene in latrines was grossly inadequate as reported by (Olatunji & Thanny, 2020). In a nit bit, this has shown how the poor hygiene indicators have traverses many schools in the country and consequences are bound to revamp on the health of children and the entire public health (Olatunji & Thanny, 2020). Hygiene in this context simply means availability of soap and water to wash hands after toilet to ensure hygiene and halt the fecal-oral and other routes of transmission of diseases, that when allowed could lead to many effects like abandoning classes by children, malnutrition, crippling (in case of polio), morbidity, and death in some cases; in turn affecting education as well.

In the developing countries, there is double burden of diseases causing devastating health effects on citizens. One of the burdens due to infectious diseases is related to lack of water, sanitation, and hygiene (Azuogu, et al., 2016). It is a great challenge and concern to prevent diseases in public schools where students interact with closeness (Azuogu, et al., 2016).

More especially, the Sokoto that lies in an arid region characterized with many challenges including climate change, pollution, poor infrastructural provision in the schools, and poor academic outcome in often times (Boyi, 2013; Suleiman et al., 2021; Yarima et al., 2021; Mustapha et al., 2022).

Certainly, the proximate effects of WASH are huge and results in spread of water-borne and water-related infections among teeming population affect the children, old, and women/ girls in a more pronounced fashion. It was related that lack of WASH spurs at least $\frac{1}{4}$ of all child deaths and account for 20% of the entire childhood burden of diseases across the entire globe (Obguehi et al., 2020).

Unfortunately, as revealed by this study and other antecedent studies there is poor WASH indicators in majority of the public secondary schools in the state and part of the country. A visit to many schools will unravel the serious public health concern displayed in the form of inadequate water supply, unsafe water supply, and poor sanitation, inadequate toilets availability, poor toilets nature, and the likes; a situation that could invariably harm the ability of students and other actors to engage in learning activities properly to achieve greatness (Salihu et al., 2017; Obguehi et al., 2020). Indeed, it will affect their health, more especially the children are mostly devastated because of their growing nature of the body. They have to abandon schools/ classes when sick due to infectious diseases (like the perennial typhoid fever, and malaria), or wander to fetch water/ find a place to defecate; and in turn causing absenteeism and low academic performance (Umar et al., 2017; Umar et al., 2021).

More often, the girls/ women among students and staff have to leave schools/ classes because of lack of water and toilets for their menstrual period or for defecation or urination; in turn affecting their attendance and performance and can exposed them to indignity, rape, and possible injuries from animals like reptiles whenever wandering to find a place to ease themselves or fetch water (Magami & Ibrahim, 2016; Obguehi et al., 2020). It is imperative to call on the policy makers to bring up policies that will harness the water bodies in the semi-arid region of the state to supply enough and safe water to the public, and imbibe feasible methods to make latrines available and accessible in public, household and school areas. Likewise, there is need for provision of hygiene hardware in the schools to support the health promotion of students, other school actors, and the entire

public (Sifawa & Muuhammad, 2014; Magami & Ibrahim, 2016; Shehu et al., 2014; Mustapha et al., 2022); because in every schools there is need for proper water, sanitation, and hygiene fulfillment so that the environment would be conducive, safe, and suitable for learning activities to take place smoothly (Kasarawa et al., 2017; Yahaya et al., 2019). Consequently, there would be achievements in terms of safety of girls, socioeconomic development of community, gender equality, reduced child mortality, achieving goals of education in the Sustainable Development Goals (Ogbuehi et al., 2020; Abubakar & Raji, 2021; Winter et al., 2021; Nair, 2022).

Conclusion

For every child or youngster or human, there is need for water, toilet, and hygiene at home or school in order to cut up the chain of disease transmission; but when there is scarcity or inadequacy, there is every possibility of transmission of diseases (infectious due to microbes and chronic due to chemicals at school laboratories or classes); that is why this study was carried out to assess the level of water, sanitation, and hygiene among secondary schools in Sokoto, Nigeria. From the finding of this study, it has indicated that there are significantly poor WASH services in public secondary schools in the state, and in turn could pose public health problems to the school actors (especially the youngsters, girls and women teachers), the surrounding public, and the entire society at large. The poor WASH can devastatingly affect academic performances of students through school absenteeism during sick days or open defecation or menstrual hygiene or as a result of shyness or searching for water or due to malnutrition gotten from parasitic worms. It also affects the girl-child education as well. The situation can easily be aggravated by the improper utilization of water resources in the state, climate, poor funding, and poor infrastructures in many schools of the state.

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Assessing University Students' Attitude towards Online Learning: A Mixed Methods Case Study

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Abstract

The researchers aimed to assess university students' attitudes toward online learning at the University of Balochistan. A mixed methods case study design was utilized to investigate the study. The quantitative data collection and analysis were followed by the collection of qualitative data through interviewing which were used to explain the initial quantitative results. A questionnaire with close-ended questions was designed by reviewing the literature on the phenomenon under study. The tool was a 5-point Likert scale which was filled by 299 undergrads enrolled in different departments of the University of Balochistan. Frequencies and percentages were calculated and used to conclude the study results in the first strand and then interviews were conducted with seven students whose responses were analyzed by using thematic analysis. It was reflected that students had high frequencies in their positive attitudes toward online learning. The students reflected that it is cost-effective in terms of time, money, and energy. Therefore, it is suggested that the university authorities need to organize online courses and classes to equip them with the practical acquaintance and uses of online learning in providing access to classes.

Keywords: Online learning, new trends, university students, mixed

Introduction

Computer-generated environment for teaching learning is luring the attention to a great extent in the fields of business and education (Muñoz Cristóbal et al., 2017). Especially after the closure of all educational and business ventures changed the working behaviors like serving, hiring, collaborating, and purchasing and selling goods and services etc. (Elyassi, 2021; Ruiz Estrada et al., 2021). The abrupt changes in the working behaviours of people and organizations have laid an unparalleled burden on the infrastructure of Internet (Favale et al., 2020). As a result, a rapid use of online learning platforms could be in place of face-to-face traditional learning like zoom, google meet etc. The students are well aware of the utilization and usefulness these apps and platforms of online learning (Al-Fraihat et al., 2020).

It becomes a norm that education and being a part of teaching-learning in a class is gone beyond the boundaries of traditional classrooms where the teacher and students need to be limited to the boundaries of a physical classroom. Now access to education can be easier for the masses by adopting different forms. Among these varied forms, there is online learning which is mostly developed and adopted mode of learning not only in advanced countries but in developing countries as well swiftly.

The term online teaching is defined by Carliner (1999) as teaching substance provided through a computer. Another definition came from Khan (1997) as an approach for sharing instruction with distant pupils via the internet. The definition of Carliner (1999) is quite different from Khan (1997) as the former is emphasizing a computer without sharing what medium will be used for instructions which do not give a comprehensive form of online teaching understanding while Khan (1997) is presenting a little comprehensive definition of online teaching.

Another definition by Anderson (2011) explains that "Online learning as a subset of distance education has always been concerned with the provision of access to an educational experience that is, at least more flexible in time and space as campus-based education". (Anderson, 2011, p. 53). The definition of Anderson (2011) is more comprehensive than the definitions

of Carliner (1999) and Khan (1997). The definition of Anderson will be used in the current study, given the importance of perception. Although Carliner (1999) and Khan (1997) say that online teaching is an experience through computer and the internet but ignoring the stance of flexible working environment and time. As it is the essence of online teaching that the students and teacher both enjoy teaching without any boundaries of space and time. The definition of Anderson is therefore more relevant to the current study.

The term attitudes are known and explained the behaviors that depict their likeness and dislikeness towards a specific thing or idea. (Schiffman and Kanuk, 2008). Neely and Tucker, 2010 elaborated that the attitudes of students regarding online learning are influential in determining the success and outcome of an online class.

Isabelle (2012) in his study on online learning aimed to bring about changes in the whole educational development. Several terminologies have been used to define Online-learning as web-based learning, online learning, and computer-assisted instruction. Online learning has many definitions in the context and background of its operationalization. According to Berteau (2009), some experts believed that online learning is a teaching method that tries to integrate multiple technologies while some believed that it is an alternative to distance education, which facilitates the use of is provided. The Internet is considered an effective means of high-speed communication. Nicholls (2003) indicated online learning as an integration of different types of technologies that are exclusively designed for promoting education.

During the outbreak of Covid-19 pandemic, the educational institutes all over the world were shifted to online from face to face traditional teaching and learning (Kauffman, 2015; Wong et al., 2019). In order to meet the demands of lifelong, economical and innovative learning have urged the development of online learning for higher education students (Lee-Post & Hapke, 2017; Prior et al., 2016; Sun & Chen, 2016).

The findings of the studies rendered by Wang, Kanfer, Hinn, and Aran (2001), and an and Frick (2006) concluded that the students' attitudes towards computer technology affect the students' attitudes towards online learning Further the Gunnarsson (2001) and Suanpang (2007) asserted that

there is a strong association between attitudes of students towards the subject and their attitudes towards online-learning if getting enrolled in an online course. In addition, the results of Lim, Morris, and Yoon (2006) study affirm the idea that students are having significant assertiveness towards online learning and were found satisfied. Nevertheless, Roberts and Dyer (2005) study results argued that it is too early to predict the students' attitudes concerning online learning before going in experiencing online learning. Rather Wu & Tsai (2006) in their study concluded it was a time taking and problematic approach in education.

The claim of Lim et al. and Selim regarding students' affirmative viewpoints towards online learning are precarious and important to predicting their willingness towards online learning. Furthermore, a meta-analysis carried out by Rhema & Miliszewska (2014) revealed the key influences and elements that are effective in determining the students' assertiveness to online learning that is demographic and computer skills in using for different purposes. The university of Balochistan in pursuance of face-to-face teaching to distance or online-learning or blended learning, an understanding regarding student's assertiveness to online learning is a necessity of the hour for taking decisions in adopting online learning to meet the needs of students who are deprived of their access to education in higher educational institutes due to any unavoidable reasons.

Objectives of Study

The study aims to:

1. measure the students' attitude toward online learning at the University of Balochistan.
2. assess the perceptions of students' attitudes towards online learning.

Study Design

Mixed methods case study was used in this study to measure the students' attitudes towards teaching online. This study utilized explanatory sequential mixed methods case study design (Creswell & Plano Clark, 2011) because little is known about what is students' attitudes towards learning during online courses at the University of Balochistan. Mixed-

methods research is unsurpassed for research problems where the variables are unknown and need to be explored (Creswell, 2005). In the quantitative phase of data collection, the data were collected from the students by utilizing a survey questionnaire. In the second phase of qualitative data collection, the students were interviewed through a semi-structured interview guide. A thematic analysis was made for the qualitative data.

Sample

A sample of 299 students was taken from the university of Baluchistan Quetta as mentioned below for first phase of study to fill the questionnaire while 7 students were interviewed. In the **first phase**, the sampling was done using a simple random sampling technique whereas in the **second phase**, the sample was selected through a purposive technique.

Department	Students
IER	23
CS	75
Language	47
Pharmacy	55
DPT	44
Other	55

Instruments

The study instruments were designed by reviewing the literature and further validated with the experts. Keeping in view the nature of the study, in the first phase a questionnaire was designed. The questionnaire contained eleven (10) questions and was designed to assess the attitudes of students. All questions were close-ended and mainly centered on general information, experience, and attitude of students towards online learning. In the second phase, interview protocols were used to analyze the perceptions of students 'attitudes toward online teaching.

Demographic Characteristics

Demographic characteristics are provided in table 1 in which the majority (n=141, 47.2%) of the respondents are 25-30 years old. The majority

(n=75, 25.1%) of the respondents belong to the CS department. The majority (n=223, 74.6%) of the respondents are unmarried and the majority (n=194, 64.9%) of the respondents are female.

Table 1

Demographic characteristics of respondents

Question	Frequency	Percentage
How old are you		
20-25	141	47.2
26-30	137	45.8
31-35	21	7.0
Department		
IER	23	7.7
CS	75	25.1
Language	47	15.7
Pharmacy	55	18.4
DPT	44	14.7
Other	55	18.4
Gender		
Male	105	35.1
Female	194	64.9

Student attitudes are provided in table no: 2. In which the majority (n=109, 36.5%) of the respondents were neutral when we ask the question that it is difficult to understand online learning without getting appropriate guidance. The majority (n=151, 50.5%) of the respondents agreed that it is difficult to favor online learning on regular basis due to the least face-to-face interaction among students and teachers. The majority (n=165, 55.2%) of the respondents agreed that slow computers and poor internet connection discourage to use of online learning. The majority (n=184, 61.5%) of the respondents agreed that as a useful program suggested to peers to

utilize online learning for online learning materials. The majority (n=124, 41.5%) of the respondent agreed that online learning is often avoided as it promotes social isolation. The majority (n=154, 51.5%) of the respondents agreed that online learning highly motivates students for taking advanced courses.

The majority (n=165, 55.2%) of the respondents agreed that using online learning makes learning interesting. The majority (n=139, 46.5%) of the respondents agreed that it is a good option for learning in case of any pandemic or emergency. The majority (n=136, 45.5%) of the respondents agreed that it is time-saving for students in remote areas. The majority (n=137, 45.8%) of the respondent agreed that they find it easier to understand the concepts as compared to physical classes. The majority (n=146, 48.8%) of the respondents agreed that they prefer online learning to physical classes. The majority (n=157, 52.5%) of the respondents agreed that without practical exposure online learning produces quality students.

Table 2
Student Attitudes

Attitudes		SD		D		N		A		SA	
		<i>f</i>	%	<i>f</i>	%	<i>F</i>	%	<i>f</i>	%	<i>F</i>	%
1	Difficult to understand online learning without getting appropriate guidance.	3	1.0	96	32.1	109	36.5	83	27.8	08	2.7
2	Difficult to favor online learning on regular basis due to the least Face to face interaction among students and teachers.	02	0.7	08	2.7	109	36.5	151	50.5	29	9.7
3	Slow computers and poor internet connections discouraged to use of online learning	00	00	03	1.0	56	18.7	165	55.2	75	25.1
4	As a useful program suggested that peers utilize online learning for online learning materials.	01	0.3	05	1.7	27	9.0	184	61.5	82	27.4
5	Motivates students for taking advanced courses	01	0.3	20	6.7	80	26.8	154	51.5	44	14.7

6	Makes learning interesting.	02	0.7	09	3.0	29	9.7		55.2	94	31.4
								165			
7	It is a good option for learning in case of any pandemic or Emergency	6	2.0	13	4.3	24	8.0	139	46.5	117	39.1
8	It is time-saving for students in remote areas	05	1.7	14	4.7	54	18.1	136	45.5	90	30.1
9	Understanding the concepts is easier as compared to physical classes	04	1.3	21	7.0	58	19.4	137	45.8	79	26.4
10	Do you prefer online learning on physical classes	04	1.3	25	8.4	47	15.7	146	48.8	77	25.8

Results of Interviews

The responses of students were recorded and analyzed by using thematic analysis. The following themes were analyzed to conclude the study.

Honing New Skills

The idea of being present physically in the classroom for teaching and learning is changed over the last two years with the advent of online learning and use of technology for learning. It is no more a dream to access quality learning for the people which is now available on a single click on internet. This dream could be possible by revolutionizing the process of learning by entering the era of online learning. Now it has become a workable choice for the students of higher education who are living in the far-flung areas or could not continue their studies at higher education institutes due to poverty. As a student I think it may be an economical way for honing my skills in the subjects which are difficult and cannot be learnt from the teachers in the class sometimes.

The online classes and course are designed so prudently that support the students both cognitive as well as motor skills. These both skills are necessary to be combined in order to seek wide opportunities in employment. Resultantly, the students' confidence and professional growth is also boost up that help in building better working relationship with the colleagues and employers.

Flexibility

In an online class, the students as well the teachers are free to set their own pace for teaching and learning. Moreover, it is flexible in setting schedules that may fit everyone who is involved in teaching and learning. It may allow the students who are the breadwinner of their families, can maintain a balance between work and education. It supports us to manage time for work and studies. It also prompts in us to accept more autonomy and responsibility in an online learning ohe part of students. As the online learning offers the students with complete control over learning rather being present in class physically. They are more accountable for their learning by adjusting time and make decisions for their learning. This accountability helps them to make use of learning resources and time at their best level. Like many students around us are earning best wages in the morning as compared to the wages be offered by jobs in the evening. Unlike traditional face to face classes, the online classes don't impasse the students to be present and utilize the resources and services of learning in its scheduled timing. Rather it lets the students to decipher how and when to learn by customizing their courses at their own pace and time. No doubt, it will lead the students to be more fruitful in utilizing the learning resources at their full.

Cost-Effectiveness

Likewise, internet with its width and vastness in teaching us infinite competencies and skills that are the demands of today' global markets employability, online courses are being offered by maximum universities and educational institutes at different levels and a great variety subjects and skills vastly. The students can learn different programs and skills by choosing their own option in order to get certified diplomas and degrees which are most of time are free, if not free, the fee is so nominal that can be afforded by students easily because it costs nothing to travel, therefore it is effective in term of time, and saves energy. That's why the educational institutes all over the world are familiar with the value and effect of online learning in term of cost effectiveness, are now introducing and shifting some of the theory courses to online. In online classes, the students are not only engaged by teachers but it also saves the time of students and teachers

in assigning and completing the tasks which cannot be completed during classes.

Findings

- The majority of the respondents were neutral when we ask the question that it is difficult to understand online learning without getting appropriate guidance.
- The majority of the respondents agreed that it is difficult to favor online learning on regular basis due to the least face-to-face interaction among students and teachers.
- The majority of the respondents agreed that slow computers and poor internet connection discourage to use of online learning.
- The majority of the respondents agreed that a useful program suggested to peers to utilize online learning for online learning materials.
- The majority of the respondents agreed that online learning is often avoided as it promotes social isolation.
- The majority of the respondents agreed that online learning highly motivates students for taking advanced courses.
- The majority of the respondents agreed that using online learning makes learning interesting.
- The majority of the respondents agreed that it is time-saving for students in remote areas.
- The majority of the respondent agreed that they find it easier to understand the concepts as compared to physical classes.
- The majority of the respondents agreed that they prefer online learning to physical classes.
- The majority of the respondents agreed that without practical exposure online learning produces quality students.

Discussion

The present study results are parallel to the findings of Dhamija (2014) that evaluated undergraduate attitudes towards online learning for academic purpose and reported the positive attitudes towards online learning. Rehman, Siddiqua, & Waheed, Z. (2021) yield the same result as online education enables us to teach and learn anytime and anywhere in

the world which is a good initiative being taken by educational institutes. As it does not bound students to place to arrive neither to observe a strict timing for learning which is helpful in retaining the educational activities. Jamil, Sethi, & Ali (2016) results affirm the present study outcomes about the readiness of students' attitudes for adopting E-learning for teaching and learning mode. In addition, the results of Lim, Morris, and Yoon (2006) study affirm the idea that students are having significant assertiveness towards online learning and were found satisfied. Several pieces of research conducted by Berge (1997), Stocks & Freddolino (1999), Cunningham, McDonnell, McIntyre, & McKenna (2009), Çiftci, Güneş, & Üstündağ (2010), Rhema & Miliszewska (2014) depicted the significance to study and report the attitudes of students regarding online-learning to develop and establish online courses in a university. Further, the studies by Sanders & Morrison-Shetlar (2001), Alomyan (2004), and Zhang & Bhattacharyya (2008) delineated the students' assertiveness and views towards online-learning are the means and detriment to determine the outcome of online learning.

The claim of Lim et al. and Selim regarding students' affirmative viewpoints towards online learning are precarious and important to predicting their willingness towards online learning. The present study results are in contrast with Nagar & Darji (2021) whose study reported a 63.25% students have moderate attitudes towards online learning but 63.25% students have adequate attitudes.

Conclusion

The higher frequencies in the positive attitudes, indicate that the students of Balochistan University show their agreement and readiness in attitudes toward online learning which is a strong indication that the University of Balochistan students are ready to adopt online-learning as a teaching mode but they are reluctant in some attitudes as they don't have improved access because of a slow computer and poor internet connection that discourage to use online learning. This survey may be productive in providing a baseline for university authorities in deciding between the adoption of online learning and distance mode in the wave of eliminating the B. A and M.A. annual as private examination and providing an insight into

discovering the reasons that made the student uncertain about their positioning in terms of adopting online learning as a mode of teaching in place of traditional face-to-face teaching. The students can learn different programs and skills by choosing their own option in order to get certified diplomas and degrees which are most of time are free, if not free, the fee is so nominal that can be afforded by students easily because it is cost nothing to travel, effective in term of time, and saves energy.

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Influence of Overcrowded Classrooms on Students' Academic Performance in Secondary Schools of Nigeria

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Abstract

The study was conducted to find out the influence of overcrowded classrooms in teaching and learning process on students' academic performance in selected secondary schools in Sokoto South local government area, Sokoto state. A sample of four principals, eight vice principals, one hundred and forty teachers, three hundred and thirty-eight students were selected for the study. A self-constructed questionnaire was used. Data obtained was analyzed using simple frequency and percentage to answer research questions, Pearson product moment correlation coefficient was used to test the hypothesis at 0.05 level of significance. Results indicated a positive correlation between teacher/students ratio and students' academic performance; and there is a weak negative correlation between availability of instructional materials and students' academic performance. Study concluded that, teacher/students' ratio demand has a great influence on students' academic performance. Thereby allowing the teacher to render what is expected of him/her to the students, availability of instructional facilities has no any bearings with students' academic performance. The study recommends among others that, government should device means of obtaining qualitative, competent, and competent teachers so as to meet teacher/students ratio of 1:35/40 for primary and secondary school respectively, not only matter of quantity.

Keywords: *Students assessment, quality teaching, academic performance, Sokoto, space, crowded classrooms.*

Introduction

Teaching is characterized by number of factors in 21st century that hinder its effective delivery in almost all the levels especially in developing countries Nigeria inclusive, upon which overcrowded classrooms is amongst. From all tiers, governments ensure that more reasonable number of citizens have gotten their right and opportunities to be formally educated for better progress of all (Sulaiman, 2020). Some reports have it that, Nigeria is equally on track to achieve one hundred percent enrolment at primary and post primary levels of education through Universal Basic Education, hence, Sokoto state is not left out in the bid to achieve this. For the world and its parts to attain progress there is need for enrolling people to schools as a form of investment with huge result in human capital in diverse societies of the world (Aliyu & Bichi, 2019). Because, investment in humans serve as a catalyst that speed up development in any nation whatsoever across the globe. Therefore, it is pertinent to lay policies that make humans developed to have potentials for discharging their jobs efficiently. People that are educated have been traversed into a system that make them grounded with proper values, knowledge, attitudes, skills, behaviors, and competence as well (Sarkingobir et al., 2022). Certainly, many countries that have seen boosted economic and societal growth as a result of their developed humans owing to their education they obtained. Therefore, education is a pivotal tool that harness and elicit development processes (Cheema, 2021; Zendah et al., 2021).

Education is believed to be a major instrument that develop groups, individuals, nations, regions, and the whole world entirely. Therewith, governments, and private individuals have taken so much efforts to form schools that deliver sound and quality education to the people. However, despite all efforts made by various stakeholders in education sector, there is general outcry about its falling standard which some attributed to students' enrolment mostly in metropolitan areas (Inuwa & Yusof, 2014). According to Aliyu & Bichi (20019) in recent years, the number of students' enrolment in the school system has increased tremendously, and these led to the overpopulation of several educational facilities. The federal

Republic of Nigeria in the year 2004 for instance, recommends a teacher/students ratio of 1:35/40 for primary and secondary levels of education respectively. These ratios are considered adequate and reasonable to ensure an effective teaching-learning process in the classroom. It is however, regrettable to state that the current average teacher/students ratio in most Nigerian public schools is put from 1:100 to 1:150 (Aliyu & Bichi, 2019). This clearly confirms the phenomenon of students' enrolment in Nigerian schools and it is believed to be posing untold professional challenges to teachers and students in Nigeria. Some of these challenges include making teaching learning process awkward and boring for both teachers and students. Teachers are having too many test scripts to mark, home works and examination scripts to mark. On the other hand, some students do receive lessons on the bare floor and writing on their laps.

Kanayochukwu et al (2020), posited that, overpopulation of learners in educational facilities spurred a poor standard of education in many respects across states, and the country at large. In turn, the situation has led to some teachers been hesitant on their work and in turn can lead to brain drain and in many respects had caused teachers to lost interest in their teachings and make poor performance noticeable among students. This unsavory situation stated is an issue that seek for immediate attention by the leaders and other related actors in education to surf for ploys to address the problem in the state. Therefore, it is imperative to carry out this study in the secondary schools in Sokoto south local government area.

Rationale of Study

A study environment has an overwhelming influence on academic performance of students as well as other school actors (Sarkingobir et al., 2019; Bello et al., 2022). However, in the Sokoto state there is a couple of experience characterized with schools that have some challenges including that of infrastructures; and the government and well-meaning people are calling for more enrollment of wards to schools. In the same vein, the state is facing poor performance been recorded by students. Thus, it is utmost to unveil the factors behind this using an empirical study to help solve the problem of the state pertaining education.

Objectives

This study aimed at achieving the following objectives:

- i. To find out the influence of students'/teacher ratio demand on students' academic performance in selected secondary schools of Sokoto south local government area.
- ii. To examine how availability and the use of instructional materials affects learners' academic performance in selected secondary schools of Sokoto south local government area.

Research Questions

The following research questions were raised in order to achieve the above research objectives:

- i. What is the effect of students'/teacher ratio on students' academic performance in selected secondary schools of Sokoto south local government area?
- ii. How do availability and use of instructional materials affects students' academic performance in selected secondary schools of Sokoto south local government area?

Research Hypotheses

The following research hypotheses tested at 0.05 alpha level guided the study:

- i. Ho1: there is no significant relationship between students'/teacher ratio demand and students' academic performance in selected secondary schools in Sokoto south local government area.
- ii. Ho2: there is no significant relationship between availability and use of instructional facilities in selected secondary schools of Sokoto south local government area and students' academic performance.

Literature Review

For sound and qualitative education to be obtained, there is the need for quality control of our formal institutions of learning. The teacher is the life wire of the classroom learning program. He is planner and the implementer of schools' learning process at the classroom level. This is perhaps hinted why Federal Republic of Nigeria maintains that, no system of education

can rise above of its teachers. However, there are certain conditions that characterize the teacher work environment for him to deliver well in his professional responsibility (Sarkingobir et al., 2019; Nanbak, 2020; Casian et al., 2021). This can be demonstrated in situation where the teacher is forced to work in a school with overcrowded classes. Under such conditions the teacher's task is very enormous and such would be faced with number of challenges. In recent years, records have shown that a huge rise in number of people entering schools has led to overpowering the capacity of facilities and turning to overcrowding situation nowadays (Sarkingobir et al., 2017; Dange & Dange, 2019). There is no problem with the rise in the number of students' intake into schools, in fact, it is a welcome development to witness increase in student's enrolment on one hand, and existing human and material resources needed to cater and accommodate these students on the other hand (Kaur, 2019; Umar et al., 2017; Umar et al., 2018).

The problem of overcrowded learning facilities has an effect to put much load and challenge on the teachers above their normal capacities. It has manifested in putting more tests, assignments, and examination booklets for the teachers to handle far better than their normal capacity in the timeframe. Under this condition, it often seldom for the teacher to remain objective and consistent with regard to the manner he/she awards marks to students (Sarkingobir et al., 2022; Nair, 2022). This scenario also affects marking and lead to delay in marking and recording student's examination. An overcrowded class also not conducive for ensuring effective classroom management (Bello et al., 2022) which according to Kanayochukw et al (2020), is prerequisite to effective learning as no meaningful learning can take place in a chaotic and rowdy classroom environment.

In this situation the teacher cannot easily monitor and identify problem behavior from students since many of such students may easily hide in the midst of other students. According to Aliyu & Bichi (2019), students' overpopulation is that population which does not fall into profitable use and which include students who are taken care of by the students'/teacher ratio demand or the users infrastructure ratio level. In this situation, there exist science students who have no access to the laboratory/library, technical students who have no access to the workshops and computer students who have no access to the computer to practice. These

shortcomings mentioned are detrimental to the issue of quality control in our educational system (Jalili & Mal-Amiri, 2015; Nair, 2022).

Significance of the Study

This study will be helpful the government to be alerted on the exact nature of the effect of overcrowding in classrooms in the state to take measures to salvage the situation. It is also a noteworthy thing for the education advocators to seek the hands of donors and wealthy people to put up measures to support the education sector in the state.

Methodology

The study adopted descriptive survey design of correlational type conducted in four secondary schools in Sokoto south local government area. The population of the study comprised of four principals, eight vice principals, two hundred and thirty teachers and three thousand, two hundred and sixteen students as depicted in the table 1 below:

Table 1

Population of the study

s/no	Category	Population
1	Principals	4
2	Vice principals	8
3	Teachers	230
4	Students	3216
Total		3458

Source: Field data, (2022)

A sample of four principals, eight vice principals were purposely selected respectively, a sample of one hundred and forty-two were randomly selected from teachers and a sample three hundred and thirty eight students were selected proportionately guided by research advisor table of sample size determination.

The instruments for data collection was a researcher designed Likert type four scale questionnaires titled “questionnaire on students’ enrolment in selected secondary schools of Sokoto South local government area (QSESSS”, “questionnaire for teachers on students’ academic performance in selected secondary schools of Sokoto south local government area of

Sokoto state (QTSAP)", an interview guide was also developed by researchers on the availability of instructional facilities.

The instruments were validated by experts and other colleagues and validity index was arrived at 0.76 and 0.72 respectively and reliability coefficient was obtained using Cronbach Alpha statistics at 0.68 and 0.71 for the instruments. Data obtained from the respondents were analyzed using simple frequency and percentage to answer the research questions and the Pearson Product Moment Correlation Coefficient (PPMC) was used to test the null hypotheses at 0.05 level of significance. analysis.

Results

H₀₁: there is no significant relationship between Teacher/Students ratio demand and students' academic performance in selected secondary schools of Sokoto south local government area.

Table 2:

Teacher/students ratio demand and students' academic performance

		Ratio Demand	Students' Academic Performance
Ratio Demand	Pearson correlation	1	.574
	Sig. (2-tailed)		.001
	N	142	140
Students' Academic Performance	Pearson correlation	.574	1
	Sig. (2-tailed)	.001	
	N	140	140

Source: Field data (2022)

In Table 2, Pearson correlation was conducted to determine the relationship between students'/teacher ratio demand and academic performance, result revealed that, there is a significant relationship between teacher/students ratio demand considering p-value (sig) $0.001 < 0.05$. It also means that there is positive moderate relationship as results shows $r = 0.574$. hence null hypothesis not accepted. Implying that for students to effectively perform in their classes teacher/students ratio demand has to be put in place and this concur with a recent finding in Anambra state Nigeria, that reveals overcrowding in pupil's classrooms as a negative factor on their academic achievement (Ndubueze & Chinasa, 2021). As shown by tables of this

study, it has listed many negative issues due to overcrowding in schools in the affected study area. They include possibility/ encouragement of examination malpractice, reduced use of facilities, possibility of results omission, poor room for assessment of students, delay in result release, un-comfortability of students and teachers, and poor performance.

Ho2: there is no significant relationship between availability of and use of instructional facilities and students academic performance in selected secondary schools of Sokoto south local government area.

Table 3

Availability and use of instructional facilities and students’ academic performance

		Availability and use of Instructional Facilities	Students’ Academic Performance
Ratio Demand	Pearson correlation	1	.109
	Sig. (2-tailed)		.200
	N	142	140
	Pearson correlation	-.109	1
Students’ Academic Performance	Sig. (2-tailed)	.200	
	N	140	140

Source: Field data (2022)

Table 3 depicted the result of correlation between availability and use of instructional facilities and students’ academic performance in selected secondary schools of Sokoto south local government area. Result shows that there is no significant relationship between availability and use of instructional facilities and students’ academic performance considering p-value of .200>0.05 level of significance. In the same vein, there is weak negative relationship judging by r-value of -.109. implying that null hypothesis has been retained. Meaning that, there is no significant relationship between availability and use of instructional facilities and students’ academic performance. This is in contrary to the findings of

(Sarkingobir et al., 2017; Sarkingobir et al., 2019; Dange & Dange, 2019; Bello et al., 2022).

Table 4

How do you feel when teaching large classes?

	Frequency	Percent	Valid percent	Cumulative percent
Fairly comfortable	85	53.1	59.9	59.9
Comfortable	29	18.1	20.4	80.3
Not comfortable	28	17.5	19.7	100
Total	142	88.8	100	
Total	160	100		

Source: Field survey (2022)

Data presented in table 4 indicated that 85(59.9%) of the teachers expressed that they were fairly comfortable with large classes while 29(20.4%) were comfortable of large classes, in the same vein, 28(19.7) were of the view that they are not comfortable.

Table 5

Classes of large number of students affect teachers' method of marking

	Frequency	Percent	Valid percent	Cumulative percent
Strongly agreed	42	26.3	29.6	29.6
Agreed	86	53.8	60.6	90.1
Disagreed	14	8.8	9.9	100.0
Total	142	88.8	100.0	
Total	160	100.0		

Source: Field data (2022)

Result presented in table 5 shows that 42(29.6%) of the respondents strongly agreed that classes of large number of students affects their marking method, 86(60.6%) agreed that large classes affect their marking method of marking, also 14(9.9%) disagreed with the statement.

Table 6*Classes of large number of students cannot be assessed effectively*

	Frequency	Percent	Valid percent	Cumulative percent
Strongly agreed	29	18.1	20.4	20.4
Agreed	43	26.9	30.3	50.7
Disagreed	28	17.5	19.7	70.4
Strongly disagreed	42	26.3	29.6	100.0
Total	142	88.8	100.0	
Total	160	100.0		

Source: Field data (2022).

Table 6 depicted that, 29(20.4%) of the respondents strongly agreed that classes of large number of students cannot be assessed effectively, 43(30.3%) were of the view that they agreed with the statement, also 28(20%) disagreed with postulation, in the same vein 42(29.6%) were strongly disagreed.

Table 7*Its take long period of time for teachers to mark scripts if classes are overcrowded*

	Frequency	Percent	Valid percent	Cumulative percent
Strongly agreed	43	26.9	30.3	30.3
Agreed	57	35.6	40.1	70.4
Disagreed	42	26.3	29.6	100.0
Total	142	88.8	100.0	
Missing System	18	11.3		
Total	160	100.0		

Source: Field data (2022)

From table 7, result indicated that, 43(30.3%) of the respondents were strongly agreed that its take teachers long period of time to mark scripts of overcrowded classes, also 57(40.1%) agreed on the statement, similarly 42(29.6%) disagreed on the statement.

Table 8*Teachers teaching large classes are likely to omit students result*

		Frequency	Percent	Valid percent	Cumulative percent
	Strongly agreed	30	18.8	21.1	21.1
	Agreed	28	17.5	19.7	40.8
	Disagreed	56	36.0	39.4	80.3
	Strongly disagreed	28	17.5	19.7	100.0
	Total	142	88.8	100.0	
Missing	System	18	11.3		
Total		160	100.0		

Source: Primary data (2022)

Table 8 presented result of teachers teaching large classes are likely to omit students result, it indicated that, 30(21.1 %) of the respondents strongly agreed with the statement, 28(19.7%) agreed, 56(39.4%) disagreed with postulation, also 28(19.7%) strongly disagreed.

Table 9*Government provided available classrooms for instruction*

		Frequency	Percent	Valid percent	Cumulative percent
	Highly available	10	6.3	7.0	7.0
	Moderately available	35	21.9	24.6	31.7
	Fairly available	45	28.1	31.7	63.4
	Not available	52	32.5	36.6	100.0
	Total	142	88.8	100.0	
Missing	System	18	11.3		
Total		160	100.0		

Source: Field data (2022).

Table 9 presented that government provided available classrooms for instruction were 10(7%) of the respondents were of the view that available classrooms are highly available, 35(24.6%) viewed that classrooms are moderately available, 45(31.7%) were of the view that classrooms are

fairly available, also 52(36.6%) believed that classrooms for instruction were not available.

Table 10

Government provided spacious instructional classroom

		Frequency	Percent	Valid percent	Cumulative percent
	Strongly agreed	11	6.9	7.7	7.7
	Agreed	21	13.1	14.8	22.5
	Disagreed	64	40.0	45.1	67.6
	Strongly disagreed	46	28.8	32.4	100.0
	Total	142	88.8	100.0	
Missing	System	18	11.3		
Total	160	100.0			

Source: Field data (2022)

From the data presented in table 10 shows that 11(7.7%) strongly agreed that government provided spacious classrooms for instruction, 21(14.8%) agreed on the statement, 64(45.1%) disagreed and 46(32.4%) strongly disagreed.

Table 11

There are available chairs and desk in my school

		Frequency	Percent	Valid percent	Cumulative percent
	Strongly agreed	14	8.8	9.9	9.9
	Agreed	39	24.4	27.5	37.5
	Disagreed	45	28.1	31.7	69.0
	Strongly disagreed	44	27.5	31.0	100.0
Missing	System	18	11.3		
Total	160	100.0			

Source: Field data (2022)

Data presented in table 11 shows that 14(9.9%) of the respondents strongly agreed that there are available chairs and desks in schools, 39(27.5%) agreed on the postulations and 45(31.7%) disagreed on the statement, in the same vein 44(31%) strongly disagreed.

Table 12*There are adequate required teaching and learning facilities in my school*

		Frequency	Percentage	Valid percent	Cumulative percent
	Strongly agreed	11	6.9	7.7	7.7
	Agreed	28	17.5	19.7	27.5
	Disagreed	56	35.0	39.4	66.9
	Strongly disagreed	47	29.4	33.1	100.0
	Total	142	88.8	100.0	
Missing	System	18	11.3		
Total		160	100.0		

Source: Field data (2022)

In table 12, data presented shows that, 11(7.7%) of the respondents strongly agreed that there are required teaching and learning facilities in schools, 28(19.7%) agreed on the statement, while 56(39.4%) of the respondents agreed, 47(33.1%) strongly disagreed on the statement.

Table 13*The required teaching and learning facilities are optimally put to use*

		Frequency	Percent	Valid percent	Cumulative percent
	Strongly agreed	14	8.8	9.9	9.9
	Agreed	16	10.0	11.3	21.1
	Disagreed	52	32.5	36.6	57.7
	Strongly disagreed	60	37.5	42.3	100.0
	Total	142	88.8	100.0	
Missing	System	18	11.3		
Total		160	100.0		

Source: Field data (2022)

Data presented in table 13 indicated that 14(9.9%) strongly agreed that, the required teaching and learning facilities are optimally put to use, 16(11.3%) agreed, 52(36.6%) disagreed while 60(42.3%) strongly disagreed on the statement.

Table 14*Average classes students perform better than large classes*

		Frequency	Percent	Valid percent	Cumulative percent
	Strongly agreed	14	8.75	10.0	10.0
	Agreed	13	22.5	9.3	19.3
	Disagreed	36	8.1	25.7	90.0
	Strongly disagreed	77	8.8	55.0	100.0
	Total	140	87.5	100.0	
Missing	System	20	12.5		
Total		160	100.0		

Source: Field data (2022)

Table 14 presented data on average classes students perform better than large classes upon which 14(10%) of the respondents strongly agreed, 13(9.3%) agreed, 36(25.7%) of the respondents disagreed and 77(55%) strongly disagreed.

Table 15*Do you agree that overcrowding can bring about examination malpractice in schools?*

		Frequency	Percentage	Valid percent	Cumulative percent
	Strongly agreed	28	17.5	19.7	19.7
	Agreed	86	53.8	60.6	80.3
	Disagreed	14	8.8	9.9	90.1
	Strongly agreed	14	8.8	9.9	100.0
	Total	142	88.8	100.0	
Missing	System	18	11.3		
Total		160	100.0		

Source: field data (2022).

Data presented in 15 on overcrowding in classrooms may bring examination malpractice shows that 28(19.7%) strongly agreed, 86(60.6%) agreed, 14(9.9%) disagreed and 14(9.9%) strongly disagreed.

Table 16*Students population has implication on teaching/learning process*

		Frequency	Percentage	Valid percent	Cumulative percent
	Strongly agreed	58	36.3	40.8	40.8
	Agreed	14	8.8	9.9	50.7
	Disagreed	56	35.0	39.4	90.1
	Strongly disagreed	14	8.8	9.9	100.0
	Total	142	88.8	100.0	
Missing	System	14	11.3		
Total		160	100.0		

Source: Field data (2022)

Result from table 16 indicated that, 58(40.8%) of the respondents strongly agreed that population has implication on teaching learning process, 14(9.9%) agreed on the statement, also 56(39.4%) disagreed and 14(9.9%) strongly disagreed.

Discussion

The role of education in being a catalyst for various forms of development which every nation desired cannot be overstated, that is what has spurred the Sokoto state government and other agencies to try and advocate for enrollment of every child to school for the state to move forward and be in tandem with its peers and achieve development (Waheed, & Gilani, 2015; Waheed, 2016; Bello et al., 2017). However, despite the struggling of the state government, and parents to educate the people of the state, there is still an issue of poor performance that is been recorded over the years. However, this poor academic outcome being notice from the students in schools of the state is not unconnected with the diversity of problems bedeviling the education system of the state. One major problem that is taming the academic performance in the state is the issue of poor infrastructures, lack of enough classes and other related structures to contain the students in a conducive environment for profitable learning; which was an issue divulged by the findings of this study that was conducted in local government area of Sokoto metropolis (Bello et al., 2017; Gado & Alkammawa, 2017; Sarkingobir et al., 2022). Therefore, an issue causing poor performance was revealed and for improvement it has

to be remedied through putting all hands on deck. Community participation, especially the wealthy hands has to be taken very serious for achieving meaningful progress (Boyi, 2013; Ndubueze & Chinasa, 2021). Likewise, private schools are to be empowered to provide the needed services and buttress the efforts of government overwhelmed schools (Bello et al., 2017).

Conclusion

Based on the results analyzed on the research questions, the researchers arrived at the following conclusion:

Findings from research question one on; what is the influence of teacher/students ratio on students' academic performance in selected secondary schools of Sokoto South local government area? It is concluded that teacher/students ratio has a great influence on students' academic performance. Thus, if good result is expected from students the number of students per teacher should be relatively small. Thereby allowing the teacher to render what is expected of him to the students.

Findings from research question two on; how do availability and use of instructional facilities affect students' academic performance in selected secondary schools of Sokoto south local government area? It is concluded that, availability of instructional facilities has no any bearings with students' academic performance as clearly indicated in the analyzed data. Implying that, if students receive lessons in or outside classrooms can perform provided the teacher is competent and productive.

Recommendations

Based on the results of the study, the following recommendations were made:

1. That, the government and philanthropists should partner in recruiting teachers annually so as to fill the vacuum left by teachers running from teaching profession so as to meet the target set aside the Nigerian government of teacher/students ratio of 1:35/40 primary and secondary students respectively.
2. That, not only the matter of quantity, quality should be the yardstick when it comes to recruitment exercise of teachers, thereby recruiting competent, qualitative and productive teaching personnel into teaching job.

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Psychological Factors in Developing a Positive, Cooperative and Trusting Personality: A Qualitative Case Study

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Abstract

This study examines the role of psychological factors in developing a positive, cooperative and trusting personality of secondary school principal. Psychological factors such as motivation and mindset play an important role in developing the positive, cooperative and trusting personality of individuals. Motivational factors i.e., self-regulation, self-efficacy, task value and goal orientation, while mindset i.e., growth mindset play an important role in developing the personality. A semi-structured interview schedule was developed in this qualitative case study. Thematic analysis technique was used for data analysis. The results of the study showed that there is positive role of the psychological factors i.e., motivation and mindset in the development of positive, cooperative and trusting personality of secondary school principal. The study can guide the school principals about the role of motivation and mindset in the personality development. The study recommended that the overall positive culture of school, the psychological factors i.e., motivation and mindset play an important role.

Keywords: Psychological Factors, Motivation, Mindset, Personality, School Principal

Introduction

The set of individual variations that may be seen in relationships, emotions, cognition, and behavioral patterns is known as their personality. According to Elov et al. (2022) defined personality as the features or combination of attributes that make a person distinctive." The authors further raised a question, either the personality is inherited or it is affected by environmental factors. There are many factors i.e., psychological which affect a person's personality.

It is evidenced through the literature that different psychological tests have been conducted to identify the factors which affect the personality. A famous dog breeds test was conducted by anthropology professor Daniel Freedman. His research aimed to determine whether breeds had any common personality traits. He further investigated the heritability of personality characteristics in humans. According to him, society had no impact on babies, and any apparent personality would have been entirely hereditary. He discovered that compared to western newborns, Asian newborns were calmer. He further found that submissiveness and friendliness are inherited traits (Schwaba et al., 2022).

An American psychologist David Keirsey categorized a persons' behaviour. He believed that a person's behaviour either shape them into an artist, a guardian, a rationalist, or an idealist (Kobylińska et al., 2020). Another psychologist Robert Plomin worked on psychological factor temperament, the foundation for the growth of personality. Plomin found that emotionality, actively and sociability are the three key characteristics that best describe the temperament (Scrivner et al., 2021).

The other psychological factors which play an important role in developing the personality of the individual are motivation and mindset. A motivated principal always motivates his/her teachers, students to spend better professional and academic life (Lazowski & Hulleman, 2016). The motivational factor is very important that a principal must understand. This factor will create interest among principals to play an active, cooperative and trustworthy role during leadership role. Because the sub factors of motivation i.e., self-efficacy, self-regulation, learning goal orientation and task value could remove difficulties on the growth and development of an individual (Fortus & Vedder-Weiss, 2014).

The school principals play an important role for developing a conducive environment in the schools. To create this type of environment, it is essential for them to have positive, cooperative and trustworthy personality. Because they have to deal with faculty, staff and students. Their attitude, behaviour and mindset will affect the overall learning environment. The main objective of this current research study is to examine those psychological factors which develop the personality of the school principal. Due to the importance of this study, there is need to get the in-depth data. That is only possible through qualitative study. So to fill this methodological gap, the authors choose the case study method to find out the role of psychological factors.

Objectives of the Study

The objectives of the study were to:

1. Identify the psychological factors i.e., motivation and mindset which develop the personality of the school principal.
2. How does the psychological factors i.e., motivation and mindset develop the positive, cooperative and trustworthy personality of the school principal.

Literature Review

Aristotle the philosopher noted that people might have different cultural values (De Miguel & Buss, 2011). It is evidence through the literature that there is relationship. Researchers have discovered that a relationship occurs among the psychological factors i.e., motivation and personality development (Massendberg et al., 2016). The authors further elaborated that there is little evidence that how these factors play and shape the personality.

An experiment was carried by American psychologist and professor Philip Zimbardo, testing the influence of social positions on behaviour. He split the class into two groups and conducted a practice jail exam. The volunteer students were instructed to portray prisoners and prison guards, and as they did so, they noticed that the prisoners began to adopt passive attitudes toward the guards while the officers started to adopt authoritarian ones.

Austrian physician and psychotherapist Alfred Adler established the concept of distinct personality. Using data from twin, sibling, and adopted kid households, he was able to make the case that birth order matters a lot when defining personality (Lind et al., 2020). He discovered a link between age and specific characteristics. Adler investigated the impact of birth order on educational achievement and drug usage (Littletree, 2015). As per Adler, almost all newborns experience feelings of inferiority as a result of their sense of powerlessness. One aspires for supremacy as they progress through the phases of growth.

Edward Thorndike said that Any action is more likely to be repeated if it results in a positive outcome than if it is followed by an unfavorable one (Becker et al., 2020). In his trials with pigeons and rats, Skinner focused on characterizing the behaviour that could be observed. He came to the conclusion that the forces influencing behaviour were either positive or negative reinforcement.

Albert Bandura, a Canadian psychologist contrasted the learning theories by proposing that individuals instinctively learn by observation rather than personal experience. He refers to this idea as social learning theory (Bandura, 2020). He further defined that the confidence in one's capacities to plan and carry out the courses of action necessary to manage potential scenarios. He observed a kid's behaviour after they seen an adult model act violently against a doll in his tests on child aggressiveness and non-aggression. Role models have a significant role in deciding whether they have a good or negative impact on behaviour and personality development, according to Bandura's social learning theory.

Educational institutions know that positive, cooperative and trusting personality of principals have very importance. The aim of the present research work was to identify the psychological factors that develop a positive, cooperative and trusting personality of a school principal. This study will be helpful for school principals to create a positive, cooperative and trustworthy environment in the school. It will also be helpful for policy makers to get insight the psychological factors which contribute in shaping the personality of the school principal. Most of the literature is about to describe the characteristics of the successful school principals. But there is little methodological evidence regarding the identification of factors which develop this successful personality. This

study will be helpful to create awareness that what type of psychological factors are required for a cooperative, positive and trustworthy environment.

Methodology

The researchers used a qualitative case study and developed a semi-structured interview guide after reviewing the pertinent literature to investigate the psychological factors that contribute to a secondary school principal's positive, cooperative, and trustworthy personality. In order to make the interview run naturally and methodically and to allow for proper questioning, the interviewer adhered to the interview guide (Sharp & Timmons, 2010).

Five sections made up a semi-structured interview guide. The introduction and demographic data made up the first part. On the initial queries came in second. The third element focused on queries about biological variables. The fourth component dealt with psychological aspect questions, while the fifth component dealt with concluding remarks. As the interview was face to face interaction, It was easy for the interviewers to able to analyze and take into account nonverbal cues such body language, mood, and expression (Aleandri & Russo, 2015). Irvine et al. (2013) stated that face-to-face interaction is a crucial component of semi-structured interviews because it promotes rapport-building and enables a 'natural' encounter, both of which are needed for carrying out successful qualitative research. A face-to-face interview was favourable since the interviewer could efficiently track replies and clear up any misunderstandings that could develop throughout the conversation.

Procedure

The data were collected through in-depth interview with the secondary school principal. The researchers conducted the interview in person and pre-informed the respondent about the recording of interview. The interview recordings have been measured a suitable option, to obtain interview data more accurately. During the interview, handwritten notes are relatively inaccurate, and the researchers can miss several key points (Jamshed, 2014). The participant happily agreed to have her comments recorded on audio as long as her name remained a secret. The researchers

had faith in her to uphold the uniqueness and distinctiveness of her ideas, respect her opinions, represent her real wanted notions, and encompass her distinctive elaborations (Cohen & Crabtree, 2006).

The transcripts and recordings were thoroughly examined by the researchers for any language cues, particularly those based on intonation. The participant's post-interview communication needed to be clarified, and a follow-up assessment was required to confirm that the interview's transcription was accurate (Coughlan, 2009). The participant was given multiple chances to have their membership checked. Through changes, this member screening process was carried out. Editing was done to both the data and the interpretations (Yüksel & Yldrm, 2015).

The participant was also asked to check the interview transcripts and the researchers' analyses in order to confirm that the right statements had been made in order to maintain the study's validity and reliability (Cohen & Crabtree, 2006). The interview lasted roughly sixty minutes. The comments were audiotaped and afterwards written down in English translation. The data collected from interview was input into Nvivo software that was readily available. According to Buetow (2010), a common qualitative data analysis strategy that employs sequential order is thematic analysis (Braun & Clarke, 2006).

Results

First, the researchers familiarized themselves with the interview responses by reading them several times and through different lenses. The intention was to search for any potential themes in the wake of Dey's approach. The researchers created codes by first reducing the data and then labelling the reduced data after becoming familiar with the data. Commonalities among the codes suggested grouping them into categories, which assisted the study's progression towards umbrella topics and, ultimately, conceptualization.

According to Joffe, H. (2012) related categories were merged under a single theme. Each theme was thoroughly examined by the researcher to make sure it made reference to the ideas covered in the previous literature review. The researcher carefully examined the data at each stage to look for any missing information or the possibility of identifying a new theme that might emerge from any responses that had

been highlighted. It was simple to give each topic a name after reviewing the themes. The themes that stood pertinent to the notion and the concept relevant to support that theme were used to separately define each theme. The secondary school principal provided information on gender, age, professional experience, general education requirements, and professional qualification. The participant of the study was a female principal aged 50 years with a general qualification of MSc Chemistry and professional qualification of MEs. After developing the codes following parent themes were developed by the researchers:

Openness

When the questions regarding “openness” that is one of the psychological traits of the personality was asked the participant elaborated that “The reasons behind the creativeness were that I was open to try new things and remained focused on talking new challenges. That’s why my parents always trusted on me. I always felt happy to think regarding abstract concepts”. She further elaborated that “I always liked challenging situation and enjoyed new things. I accepted the changes in a broad way. I did not show resistance to new things and ideas. I was very imaginative”.

The participant was asked that “Do you think that Openness is a cognitive style characteristic that sets imaginative and creative people?” She explained that Openness is a cognitive style characteristic that sets imaginative, creative people apart from practical, conventional ones. Intellectually interested, art-appreciative, and sensitive to beauty, open people are. People often compare them to closed individuals who are more sensitive to their emotions. They have a propensity for nonconformist, individualistic thought and behaviour. Since openness tends to be highly rated by intellectuals, the term "intellect" has also been applied to this attribute. When Freud first coined the term "neurosis," he meant a state characterized by mental anguish, emotional pain, and an inability to adequately manage daily obligations.

The participant described that “I always spent maximum time for the preparation of any task. Due to this reason the all types of tasks were completed in a right way. This is another reason that my authorities always trusted me. Because I believe in perfection. I paid attention to complete the task. I always enjoyed a schedule. This was one of the traits of my

personality. My personality developed in this way. She further elaborated: “I always liked the structure and schedule. I was very caring and took care of things. I always returned things or put them back where they belonged. This was also one of the reasons that I became trustworthy.

The participant was asked that “Do you think that Consciousness is concerned with how we manage, controls and guides our impulses?” She elaborated that Impulses do not naturally occur. Bad; sometimes, due to time restrictions, a quick judgement must be made. It can be beneficial to follow our first impulse while responding. Also, when playing rather than working, acting impulsively, and acting rashly might be enjoyable. Impulsive people can be identified by others as outrageous, entertaining, and colorful. However, behaving impulsively can cause problems in a variety of ways.

Extraversion

The participant expressed her views about extraversion. She described that “From my childhood I enjoyed to be in the center of attention. I was very trustworthy as I always liked to start conversations. I loved to enjoy the meeting with new people. I was very cooperative because I had a very large social circle of friends and acquaintances. As I was very social so it was very easy for me to make new friends. I felt energized when I was around other people”. Regarding agreeableness the participant explained that “I had a great deal of interest in other people. As I was cooperative so I always cared others. Due to empathy, I always showed concerned for other people. I enjoyed to help and contribute other people’ happiness. This habit developed the positive attitude in my personality. I always assisted who were in need of help”.

The participant further explained regarding her personality that “I had a lot of experiences to tackle stress. This reason developed trustworthiness in my personality. I did not feel worry about different things. I did not get upset. I did not feel anxious. I was emotionally stable and delat stress”. The interviewer asked that “Do you think that difficult tasks can increase or decrease your motivation level?” The participant reflected that “Yes, not doubt that in life difficult tasks or activities can increase or decrease the motivational level. But I always believe in growth mindset. When you have believed that everything is

possible with effort and consistency then no need to be worried. I always find out the solutions of difficult tasks or activities with effort and consistency.

Mindset

The mindset was found to be one of the psychological factors of the personality. The participant was asked that “Do you think that your mindset also played an active role in shaping your personality?” She replied that “I always ask my teachers and students that effort and consistency will help you the solve the problems in your academic and professional life.” She was asked that “Do you think that persistence also plays an important role in shaping the personality?” She elaborated that “In my point of view one of the main psychological factors of mindset is persistence. It really developed my personality from my childhood to till date. Whenever in life I feel anxiety or stress then this psychological factor played an important role. The principal was asked that “How did you develop enthusiasm in your personality?” She elaborated that extraverts are enthusiastic, have lots of energy, and frequently feel happy. In groups, they tend to be energetic, action-oriented people who are prone to exclaim "Yes!" or "Let's go!" to opportunities for excitement. They also enjoy talking, making claims, and grabbing attention.

Regarding the collaboration, she was asked that “How did you desire for collaboration?” It was found that from participant’s views that Individual differences in the desire for collaboration and social peace can be shown in how agreeable a person is. Individuals that are agreeable value getting along with others. As a result, they are considerate, sociable, kind, supportive, and prepared to put other people's interests ahead of their own. People who are agreeable also have a positive outlook on people. They think that people are, on the whole, nice, honest, and reliable. Disagreeable people prioritize their own needs over those of others. They rarely go above and above for others because they typically don't care about their wellbeing. Sometimes their doubt about other people's intentions leads them to be wary, hostile, and uncooperative.

Discussion

Quantifying the number of characteristics that make up a person has long been an objective of personality trait theories. The earlier suggestions recommended various numbers. For instance, Raymond Cattell identified 16 personality components, Gordon Allport presented a list of 4,000 personality qualities, and Hans Eysenck created a three-factor theory. Many academics believed that Cattell's concept was extremely complex and that Eysenck's approach was too constrained. The broad characteristics that form the basis of personality are described by the "Big 5" personality traits. Extroverts are often extroverted, secure in their social skills, motivated by being among other people, and enthusiastic about speaking in front of huge crowds of people (Hopwood, et al., 2022).

They frequently have a cheerful and sociable nature. They are typically seen as friendly and approachable by others since they are so keen to express their thoughts and feelings with them. Extroverts may be the first to introduce themselves, their friends, and themselves to other partygoers (Kobylińska, 2020). Extroverts interact and meet new people. Moreover, they are sometimes seen to be more forceful than introverts. They are more prone to discuss their opinions and thoughts and are also more outgoing (Kori & Azmi (2022)).

Consciousness is that how we manage, control, and direct our impulses. Impulses don't happen by themselves. Sadly, there are occasions when hasty decisions must be taken owing to time constraints (Lind et al, 2020). It may be advantageous to reply by acting on our initial instinct. Additionally, acting rashly and impulsively may be fun when playing rather than when working. Others can recognize impulsive persons as flamboyant, amusing, and colorful. However, acting impulsively can lead to issues in a number of different ways (Scrivner, 2021).

Openness is a person's capacity for being or becoming open-minded, innovative, creative, and insightful. People that are more open-minded typically appreciate variety, look for new experiences, and are interested and aware of their surroundings (Lind et al, 2020). Less flexible people typically shy away from change, detest disturbance, and concentrate on a small number of niche interests (Hopwood, et al., 2022). This may sound like one or more of your coworkers, or it may be that you are now analyzing your own personality to determine how affable you are. Like

many characteristics, openness has a sliding scale, and you might find yourself being more open in some circumstances than others (Kori & Azmi (2022)).

Conclusion

This study concluded that the psychological factors i.e., motivating and mindset play an important role in developing the cooperative, positive and trustworthy. Being optimistic is a quality that may be advantageous. These qualities might bolster your character or make it simpler for you to deal with any difficulties you may encounter in life. Positive personality traits include being adaptable, ambitious, considerate, cooperative, friendly, gracious, humble, introspective, objective, optimistic, respectful, steady, thorough, and well-rounded. These positive features of school principals' personalities have a significant impact on the growth and development of the institution. The school principal's behaviour will have an impact on the culture of the entire institution. The overall climate of the school will be pleasant if the principal is upbeat, helpful, and reliable. personality of the school principal.

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