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# FWU Journal of Social Sciences

## Contents

# Teachers' Perspectives towards Online Professional Development Programs during the Period of COVID-19 Pandemic in the Saudi EFL Context

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This study aimed to explore a group of teachers' perspectives on the effectiveness of online professional development programs in the Saudi English context. To achieve this main research objective, a five-point Likert scale with 21 items belonging to four essential dimensions was carried out on 537 English teachers using the snowball sampling method. The data was collected online through a Google Form-generated link. The study's findings revealed that English teachers' perceptions of the effectiveness of online professional development programs presented to them during the pandemic of Covid-19 were relatively high. No statistically significant differences were found due to gender, age, experience, or qualifications regarding teachers' perceptions of the effectiveness of online professional development programs. However, there were statistically significant differences in the efficiency of these programs between teachers who have attended these programs and those who have not in favour of the former. On the basis of these findings, limitations and recommendations were put forward .

*Keywords***:** Covid-19, EFL teachers, English, online professional development programs, perspectives, Saudi context.

Recently, the COVID-19 pandemic led the world into unprecedented crises in all fields of life. However, it has also expedited the development of technologies and mass integration of processes around remote work, education, and training. The influence of information and communication technology on establishing new ways to offer training has been deemed advantageous in education (Rosa, 2016). Furthermore, over the previous decade, there has been a surge in Online Professional Development Programs (OPDPs). According to Hartshorne et al. (2020), the COVID-19 pandemic, in particular, has accelerated the development, involvement in, and demand for online courses and activities. Consequently, the purported advantages of enhanced access, networking,

flexibility, and cheaper costs of providing teachers with online professional development (PD) have come to be regarded as trustworthy and well-entrenched.

The need to include digital technology in education, particularly OPDPs, has been actively debated in educational theory and practise over the last 20 years. Thus, developing teachers' professional competencies and identities within the online environment is essential for future research and training (Orak & Al-khresheh, 2021). Ferdig et al., (2020) state that the primary goal of OPDPs is to train instructors on how to teach online. Similarly, Vadivel et al., (2021) also mention that an educator who has been allowed to absorb something valuable can unavoidably deliver the alike to their students. According to Wuryaningsih et al., (2019), improving teacher PD in the digital era by employing web-based learning appears to be a fundamental breakthrough in strengthening teachers' skills. Furthermore, the educational efficiency of the online modality is thought to be equivalent to conventional methods, with OPDP providers claiming they can provide access and delivery benefits to reach more individuals at low prices (Lay et al., 2020).

This study aims to assess the effectiveness of OPDPs presented to English-as-a-Foreign-Language (EFL) teachers during the COVID-19 pandemic (2020-2022). The outcomes of this study might offer academics and policymakers useful information to understand EFL teachers' perspectives of OPDPs to equip them with suitable, effective, and engaging programs. Investigating the elements that influence teachers' impressions of attending OPDPs may aid in comprehending the aspects that contribute to an effective delivery process. Predictably, the study's findings would encourage educational institutions to deliver effective and suitable OPDPs that enhance EFL instructors' teaching skills. There is a marked scarcity of similarly scoped research in the Saudi setting. The current study seeks to address this gap and contribute to existing knowledge by exploring EFL teachers' perceptions of the efficacy of OPDPs in the Saudi EFL context. Given this, the current study seeks to answer the following questions:

1. How do teachers perceive the effectiveness of OPDPs during the COVID-19 pandemic in the Saudi EFL context?
2. Do EFL teachers' perceptions of the effectiveness of OPDPs during the COVID-19 pandemic diverge noticeably in terms of gender, age, experience, qualifications, and attendance of such professional programs?

### Literature Review

Recently, the COVID-19 pandemic expedited the transition of the educational paradigm from traditional classroom delivery to online formats, requiring teachers to rapidly adapt to new learning and teaching environments (Al-khresheh, 2021a). Teachers needed to learn and use online tools like learning management systems (LMS), discussion boards, online examination tools, and ways to engage students online. Most EFL teachers had never used these platforms before the COVID 19 pandemic. As a result, it has further boosted the need for the PD of teachers. Therefore, there was a need for urgent and immediate training for the teachers. In the pandemic situation, this gap was successfully filled through OPDPs provided by educational institutions and organisations. In this section, the prevalent views and relevant research regarding the need and effectiveness of OPDPs, in general, are discussed, in addition to a specific overview of those presented to EFL teachers in Saudi Arabia during the COVID-19 pandemic.

**ONLINE DEVELOPMENT PROGRAMS**

According to Ahadi et al., (2021), most studies in existing systematic reviews have not used complete PD evaluation models to evaluate teacher PD workshops. As a result, validating the significance of OPDPs and investigating whether they have the same qualities that traditional PD programs enjoy bears significance. Improving teachers' quality of instruction via teacher PD programs has been a top priority in many nations. Since its inception, PD has undergone several changes (Al-khresheh, 2021b; Elliott, 2017; Yates, 2007). Furthermore, according to Hiebert (1999), studies on teacher learning point out that compelling chances to learn new-fangled teaching methods have numerous essential features, such as: "(a) ongoing collaboration of teachers for purposes of planning, with (b) the explicit goal of improving students' achievement of clear learning goals, (c) anchored by attention to students' thinking, the curriculum, and pedagogy, with (d) access to alternative ideas and methods and opportunities to observe" them in action, enabling reflections on the causes for their effectiveness (p.15). However, all these features correspond to the pre-COVID-19 situation. There was a need to reform these features to consider the needs of teachers and students during the COVID-19 for the successful teaching-learning process.

Previously, Fullan (1991) asserted that PD is the totality of one's formal and informal learning experiences during one's career. Later on, Fishman (2016) defined PD as learning activities concerning the teaching profession conducted after the first certification. In this context, online PD corresponds to teachers' learning experiences given partially or entirely over the internet with the potential to deliver high-quality teacher learning experiences (Fishman et al., 2013). Teacher development assessment serves two primary purposes: (a) better understanding staff development so that it may be reinforced, and (b) determining the impact of staff development on its intended goals (Guskey, 2000). Teachers must be given PD to provide them with the foundation necessary to improve their performance in the classroom (Charalambos & Zembylas, 2004). This includes joint or individual development, continual education, curriculum development, team dynamics and group work, and pre and in-service education (Charalambos & Zembylas, 2004; Khan et al., 2021).

There are vital elements of transformative learning in the PD process for teachers, which occur when they transition away from being directly instructed on what to do towards the more comprehensive paradigm of assuming responsibility for their PD and leveraging independent learning and problem-solving abilities to improve themselves (Risko & Vogt, 2016). Thus, PD is positioned within the theoretical framework of transformational learning. Many scholars see transformational learning theory as the cornerstone of teacher PD since PD, Continuous Professional Development (CPD), and Teacher's Continuous Professional Development (TCPD) are all major components of adult learning (Al-Bargi, 2021; Sanchez, 2018; Shah et al., 2015). However, this continuity in the PD of teachers may be interrupted by unforeseen mega-events and incidents that cause global level changes, such as the paradigm shift in the teaching-learning methods across the globe during Covid-19.

Transformative learning influences the development of students' action theories, self-efficacy, and professional characteristics in teacher education (Aziz & Quraishi, 2017; Jones, 2009). According to Mezirow (2012), it goes through six stages: "1) a disorienting dilemma; 2) self-critical assessment of assumptions; 3) recognition through

discourse that others share assumptions; 4) exploration of new ideas and relationships; 5) planning a course of action; and 6) taking action based on the new perspective developed through this process" (p. 22).

Much empirical research has identified attributes that contribute to effective PD. However, such research is limited to regional contexts, and the body of work presenting teachers' opinions on PDPs internationally is limited (Ling et al., 2021). Although, it has been recognised that ensuring instructors can provide targeted instruction to students requires high-quality and accessible PD. These factors have motivated educational institutions to improve teaching quality (Dana et al., 2021; Teräs, 2016; Mahdi & Aldera, 2013).

The two essential aspects of good PD are expanding teachers' subject-specific content and pedagogical knowledge, including understanding how students learn and experimenting with different delivery methods (Vadivel et al., 2021; Garet et al.,1999).

Taylor (2011) identified three reasons participants chose to take an online PD course: compliance with teacher certification criteria, interest and relevance, and convenience (time). Additionally, Russell et al., (2009) found a positive correlation between having taken OPDPs and eagerness to take them in the future. On the other hand, teachers who had only taken face-to-face PDs were less eager to experience the online format. Such findings corroborate further research that has found OPDPs to be a highly effective PD tool, particularly during the pandemic (Berndt et al., 2017; Poole et al., 2020; Pradeep, 2021; Turcsányi-Szabó, 2008). Erickson et al. (2012) further highlight that OPDP-trained teachers improved their capacity to incorporate research-based methods into their teaching practices. However, OPDPs must integrate research-based teacher education, adult learning, and online learning to have this effect. Adult learner concepts are beneficial as they recognise that participants as self-directed, experienced, goal-oriented individuals motivated to enhance their knowledge and skillset (Knowles et al., 2011).

DeAngelis et al. (2013) investigated whether PD qualities influenced instructors' utilisation of new knowledge and abilities and their influence on student learning outcomes. As judged by classroom observation scores, active learning in the classroom had a minor but significant link with instructors' application of new knowledge and abilities. On the other hand, Lewis (2002) mentioned that the NSDC in the United States rates just 10% of what teachers learn in typical PD events is interminably implemented in the classroom.

Collins and Liang (2015) highlighted five essential markers of high-quality OPDPs: 1) content relevance; 2) online features and delivery quality; 3) online involvement and length; 4) transformational learning for instructional methods; and 5) adult learning theory. According to OPDP providers, the online environment presented an intriguing alternative for a high-quality service statewide deployment. High-quality OPDPs must consider several factors, including prioritising content quality, leveraging active learning, implementing proven practice models, and facilitating collaboration. Such instruction can be further amplified by providing coaching, expert assistance, ample

feedback, and an ongoing PD process (Archibald et al., 2011; Collins & Liang, 2015; Darling-Hammond et al., 2017).

Moreover, three elements make an OPDP effective compared to face-to-face PD: 1) OPDPs are flexible as the boundaries of time and place are diminished; 2) OPD participants have greater access to various content types and a wider variety of PD resources, and 3) it offers greater efficiency in terms of time and money spent on traditional PD programs. However, technology usage can be a limitation as the facilitator and participants should know the necessary technological tools to benefit from such a setting. Additionally, The unavailability of suitable technological tools can hinder the smooth commencement of an OPDP (Truong & Murray, 2020). Finally, researchers have further stated the importance of human connection in face-to-face and OPDPs (Hürsen, 2012; Elliott, 2017; Poole et al., 2020; Tweed, 2013).

Several studies, including those by Alghamdi and Li (2011), Alshaikhi (2020), and Al-Bargi (2021), have addressed the realities of PD for teachers in Saudi Arabia. Alghamdi and Li (2011) evaluated Saudi Arabian CPD programs from design, execution, and assessment perspectives. Their research provided several recommendations to overcome the challenges that limit the effectiveness of such programs. As Alghamdi (2018) discovered, 89% of faculty members felt the knowledge they had learned started to dissipate within three months of the program, despite their initial enthusiasm for what they anticipated learning from the workshops. Further investigation identified preoccupation with typical job responsibilities as the primary contributing factor, limiting their time to apply what they learned to their classrooms.

According to Alshaikhi (2020), many teachers prefer self-directed learning over official offerings due to its situatedness in their environment, speciality's nature, and the evolving nature of their careers. As shown in instructors' current practices, networking, cooperation, collegiality, and reflection are amongst the primary characteristics of self-directed learning. Furthermore, Alzahrani and Althaqafi (2020) discovered restrictions in teachers' positive views of OPD course segments, teachers' learning, and their use of innovative skills and information in research. So, COVID-19 allowed teachers to select PD sessions of their choice and need, free of cost, from a vast list of programs offered by various authentic resources like Cambridge and Oxford University Press.

Although these studies concentrated on teachers' PD in Saudi Arabia, they did not adequately investigate their perceptions of OPDPs during the COVID 19 pandemic in terms of the four dimensions presented in this study tool: 1) transformational learning for instructional practices; 2) perceptions of OPDP quality features during COVID-19; 3) online participation and duration of OPDPs during COVID-19, and 4) online features and delivery quality of OPDPs during COVID-19. Furthermore, these studies did not examine whether there are statistically significant differences due to gender, age, experience, qualifications, and, most importantly, the effectiveness of these programs for those who participated compared in OPDPs during COVID-19 to those who did not participate.

This study attempts to fill the gaps found in the previous studies. It argues that there was an abundance of OPDPs during the COVID 19 pandemic, providing EFL teachers with easy access to the sessions of their choice from well-renowned trainers in

the comforts of their homes. However, this flood of information also made it difficult for teachers to choose suitable PD sessions, keep track of their learning and then apply it in the online classes during COVID-19 distance learning. It negatively affected teachers' engagement and motivational level towards such PD sessions.

# Method

### Study Design

This study aimed to explore teachers' perspectives on the effectiveness of OPDPs presented during the COVID-19 pandemic (2020-2022) in the Saudi EFL context. A cross-sectional quantitative approach was used to collect data for the benefits of increased sample size and faster information collection. A questionnaire was distributed to the target sample using the snowball sampling method. This method was chosen because it gives the researcher(s) a reasonable chance to get populations that are challenging to sample compared to other sampling methods (Gay & Airasian, 2005). Additionally, the process is simple and cost-efficient and does not require much planning compared to other sampling techniques (Snyder, 2019).

### Participants

The study participants included 537 male and female EFL teachers aged 25 - 60 years old. Their teaching experience ranged from 1 to more than 15 years. They all have taught English online through the pandemic, meaning they have appropriate and relevant experience to participate in this study. Belonging to various nationalities, they all work in Saudi Arabia as EFL teachers. They also have varying qualifications (e.g., bachelor's, master's, and PhD degrees). Furthermore, the majority of them have attended different PD programs during the COVID-19 pandemic, as stated in their responses to the questionnaire. Their statistical characteristics are represented in Table 1.

**Table 1**
*Characteristics of Participants*

|  | Variables | Frequency | Percent |
|---|---|---|---|
| Gender | Male | 226 | 43.8% |
|  | Female | 290 | 56.2% |
| Age | ≤25 years | 49 | 9.5% |
|  | 26-30 years old | 103 | 20.0% |
|  | 31-40 years | 170 | 32.9% |
|  | 41-50 years | 121 | 23.4% |
|  | 51-60 years | 61 | 11.8% |
|  | 60 years old above | 12 | 2.3% |
| Experience | 1-5 years | 138 | 26.7% |
|  | 6-10 years | 166 | 32.2% |
|  | 11-15 years | 122 | 23.6% |
|  | more than 15 years | 90 | 17.4% |
| Qualification | Bachelor | 136 | 26.4% |
|  | Master | 251 | 48.6% |
|  | PhD | 129 | 25.0% |
| OPDPs | Yes | 384 | 74.4% |
| Attendance | No | 132 | 25.6% |

### *Instrument*

The questionnaire was the primary tool utilised in this study and was selected for the following reasons: 1) it would provide control over variations, limiting its influence; 2)  enable in-depth investigation of the phenomenon; 3) offer respondents flexibility regarding where and when they can complete their questionnaire; and 4) also enable acquiring a better understanding of an existing case (Babbie, 2005; Gay & Airasian, 2005; Siddaway et al., 2019).

The study adopted Collins and Liang's (2015) online teachers' PD questionnaire. The questionnaire included 21 Likert scale items, each containing five choices (1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, and 5=Strongly Agree). All the questionnaire items assessed information about participants' online experiences and the quality of the OPDPs they had recently attended. The questionnaire's items were divided into four major categories: 1) the first four items assessed details about participants' perceptions of OPDPs Quality Features; 2) the second eight items involved details about Online Features and Delivery Quality, 3) the following five items concerned Online Participation and Duration, and 4) the last four items dealt with Transformational Learning for Instructional Practices. The questionnaire has been validated in several studies and has demonstrated effectiveness in assessing online teachers' PD across multiple studies (Al-Bargi, 2021; Collins & Liang, 2015).

### *Data Collection and Analysis*

Due to COVID-19 restrictions, the data was collected online over two months at the end of the second semester of the 2020-2021 academic year. At the time of data collection, the participants had been teaching remotely for almost 18 months, during which they had attended PD training programs. The survey was generated electronically by Google Forms and then sent to the study participants using the snowballing method, i.e., the Google Form link was sent to a group of EFL teachers, and they were requested to circulate it. The aim of the study was clarified and introduced on the first page of the questionnaire. Moreover, the Google Form link was shared multiple times to reach the entire intended sample population. It was confirmed that all data would be retained private and would not be revealed except for this study.

The collected data was then coded and analysed with SPSS version 26. The data analysis included descriptive measures for variables at each level of measurement. Data was represented through the tabulation method using Microsoft Office Excel. Frequency, percentage, means, and standard deviations were presented. Analysis of Variance (ANOVA) was then employed to discover the statistical significance of the study's variables. Pearson's correlation was similarly used to determine the importance of the relationship between quantitative variables.

### *Reliability and Validity of the Questionnaire*

An internal consistency test was carried out through the SPSS software to check the reliability of the questionnaire. The reliability of the quantitative data was assessed by calculating the Cronbach's Alpha coefficient of the questionnaire's psychometric properties. The internal consistency of the Cronbach's Alpha value was 0.864, statistically considered a good value (Gay & Airasian, 2005), as depicted in Table 2 below. It also shows that the items had a statistically significant correlation to the

dimension they belonged to. The table shows the correlation coefficients between the degree of each item and the overall degree of the dimension to which the item belongs in the questionnaire. All the indicated correlation coefficients are significant at the significance level (0.01). Thus the questionnaire's items are considered reliable and valid for what they were initially designed to measure.

**Table 2**

*Items Correlation Coefficients Values*

| Questionnaire's Dimensions | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Participants' Perceptions of Quality Features | | Online Features and Delivery Quality | | | | Online Participation and Duration | | Transformational Learning for Instructional Practices | |
| Item No. | Correlation Coefficient | Item No. | Correlation Coefficient | Item No. | Correlation Coefficient | Item No. | Correlation Coefficient | Item No. | Correlation Coefficient |
| 1 | .722** | 1 | .463** | 5 | .454** | 1 | .682** | 1 | .786** |
| 2 | .769** | 2 | .543** | 6 | .500** | 2 | .719** | 2 | .857** |
| 3 | .764** | 3 | .634** | 7 | .438** | 3 | .798** | 3 | .842** |
| 4 | .627** | 4 | .436** | 8 | .598** | 4 | .820** | 4 | .820** |
| | | | | | | 5 | .769** | | |

## Results

The "Statistical Package for Social Sciences" (SPSS) was used to highlight the difference between the research sample's mean scores and the questionnaire's dimensions. The five-point Likert scale was employed as follows: five points to (strongly agree), four points to (agree), three points to (neutral), two points to (disagree), and one point to (strongly disagree). The arithmetic averages were calculated using the following formula: (the highest point value – the lowest value) / 3 = (5 - 1) / 3 = 1.33. As a result, the categories are as follows: 1-2.33 is low, 2.34-3.67 is moderate, and 3.68-5 is high.

### Participants' Perception of the Effectiveness of OPDPs

Table 3 shows that the participants' perceptions of the effectiveness of the OPDPs were high, with an overall average reaching 3.68 and a standard deviation of 0.49. This shows the homogeneity of the study sample members in evaluating the effectiveness of OPDPs presented during the pandemic of Covid-19. The effectiveness of the four dimensions was reasonably high, except for the dimension of 'Online Features and Delivery Quality,' which received a moderate level of effectiveness with a mean of 3.41 and a standard deviation of 0.51.

**Table 3**

*Arithmetic Means and Standard Deviations of the Questionnaire Dimensions Ranked Descendingly*

| | Dimensions | Mean | Std. Deviation(SD) | Effectiveness |
|---|---|---|---|---|
| 1 | Transformational Learning for Instructional Practices | 3.99 | 0.71 | High |
| 2 | Perceptions of OPDPs Quality Features | 3.88 | 0.64 | High |
| 3 | Online Participation and Duration | 3.71 | 0.72 | High |
| 4 | Online Features and Delivery Quality | 3.41 | 0.51 | Moderate |
| | Total | 3.68 | 0.49 | High |

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### *Transformational Learning for Instructional Practices*

Table 4 depicts that all items in the dimension of 'Transformational Learning for Instructional Practices' came with a high degree of effectiveness. The item, "As I worked through the Online Professional Development Programs, I used technology skills that were new for me," ranked first with an average of 4.02. In contrast, the item, "I learned a great deal of practical information for my teaching due to the Online Professional Development Programs," ranked last with an average of 3.96.

**Table 4**

*Arithmetic Means and Standard Deviations of Transformational Learning for Instructional Practices Ranked Descendingly*

| Item No | Item Statements | Mean | SD | Effectiveness | Ranked |
|---------|-----------------|------|-----|---------------|--------|
| 4 | As I worked through the OPDPs, I used technology skills that were new for me | 4.02 | 0.88 | High | 1 |
| 1 | I have set goals for myself regarding the implementation of OPDPs | 4.00 | 0.84 | High | 2 |
| 2 | The content in the OPDPs is easily adaptable to my classroom instruction | 3.97 | 0.86 | High | 3 |
| 3 | I learned a great deal of practical information for my teaching as a result of the OPDPs | 3.96 | 0.87 | High | 4 |
| | Total | 3.99 | 0.71 | High | |

### *Participants' Perceptions of OPDPs Quality Features*

Table 5 illustrates 'Participants' Perceptions of OPDPs Quality Features,' which were highly rated with a mean of 3.88. While three items were found to have a high degree of effectiveness of 75%, the least ranked item was found to have a moderate degree of effectiveness. The item, "The OPDPs show or describe application activities that I can readily implement in my classroom," ranked first with an average of 4.06. In contrast, the item, "The Online Professional Development Programs provided good theory, but I am not sure how they apply to my work," ranked last with an average of 3.45.

**Table 5**

*Arithmetic Means and Standard Deviations of the Participants' Perceptions of OPDPs Quality Features Ranked Descendingly*

| Item No | Item Statements | Mean | SD | Effectiveness | Ranked |
|---------|-----------------|------|-----|---------------|--------|
| 1 | The OPDPs show or describe application activities that I can readily implement in my classroom | 4.06 | 0.83 | High | 1 |
| 2 | The OPDPs provided me information I will use in the future | 4.02 | 0.80 | High | 2 |
| 3 | The OPDPs have answered some professional questions or concerns I have | 3.97 | 0.84 | High | 3 |
| 4 | The OPDPs provided good theory, but I am not sure how they apply to my work | 3.45 | 1.14 | Moderate | 4 |
| | Total | 3.88 | 0.64 | High | |

### Online Participation and Duration

Table 6 shows that the dimension of 'Online Participation and Duration' has a high level of effectiveness, with a mean average of 3.71. Three items exhibited a high degree of effectiveness, comprising 60% of the total. Two items were given a moderate degree of effectiveness, including the remaining 40%. While the item, "I viewed the OPDPs by myself from home," ranked first with a mean of 3.92, "I viewed the OPDPs with one or two colleagues" placed last with a mean of 3.52.

**Table 6**

*Arithmetic Means and Standard Deviations of Online Participation and Duration Ranked Descendingly*

| Item No | Item Statements | Mean | SD | Effectiveness | Ranked |
|---|---|---|---|---|---|
| 2 | I viewed the OPDPs by myself from home | 3.92 | 0.85 | High | 1 |
| 1 | I spent 4 hours or less viewing OPDPs | 3.88 | 0.88 | High | 2 |
| 3 | I viewed the OPDPs by myself at school | 3.71 | 0.93 | High | 3 |
| 5 | I viewed the OPDPs as part of a whole group | 3.54 | 1.06 | Moderate | 4 |
| 4 | I viewed the OPDPs along with one or two colleagues | 3.52 | 1.03 | Moderate | 5 |
| | Total | 3.71 | 0.72 | High | |

### Online Features and Delivery Quality

While EFL teachers appreciated OPDP scheduling flexibility, navigation, features, and format, they rated OPDPs lower in duration, content, motivation, and whether they are dull or exciting. Table 7 illustrates 'Online Features and Delivery Quality,' which was moderately effective, averaging 3.41. Four items with a high degree of effectiveness represented 50% of the total. The other 50% was represented by the remaining four items with moderate effectiveness. The item, "The online learning fits my schedule better than meeting face to face," ranked first with a mean of 3.82, whereas the item, "The OPDPs are boring," ranked last with a mean of 2.69.

**Table 7**

*Arithmetic Means and Standard Deviations of Online Features and Delivery Quality Ranked Descendingly*

| Item No. | Item Statements | Mean | SD | Effectiveness | Ranked |
|---|---|---|---|---|---|
| 1 | The online learning fits my schedule better than meeting face to face | 3.82 | 0.93 | High | 1 |
| 7 | Navigating the OPDPs was a clear and simple process | 3.78 | 0.83 | High | 2 |
| 6 | The OPDPs have a good balance in their text, video, and interactive tasks | 3.73 | 0.85 | High | 3 |
| 2 | The online format offers content delivery advantages over face-to-face delivery | 3.69 | 0.92 | High | 4 |
| 3 | The online part of the training was more work than I expected | 3.49 | 1.02 | Moderate | 5 |
| 8 | As I worked through the OPDPs, I felt as though I was on information | 3.26 | 1.09 | Moderate | 6 |
| 5 | It was difficult to stay motivated as I worked through the OPDPs | 2.77 | 1.14 | Moderate | 7 |
| 4 | The OPDPs are boring | 2.69 | 1.21 | Moderate | 8 |
| | Total | 3.41 | 0.51 | Moderate | |

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Table 8 below presents the ANOVA analysis of the demographic data. The table shows no statistically significant differences due to the variables of gender, age, experience, or qualifications. However, there are statistically significant differences due to the attendance variable of these professional programs between those who have attended during the pandemic and who have not in favour of the formers where the calculated F values reached 13.058, which is statistically significant at the level of significance ($\alpha \leq 0.05$).

**Table 8**

*The ANOVA Analysis of the Demographic Data*

| Source | Type III Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Gender | .013 | 1 | .013 | .062 | .804 |
| Age | .510 | 5 | .102 | .491 | .783 |
| Experience | .252 | 3 | .084 | .404 | .750 |
| Qualification | .197 | 2 | .098 | .473 | .623 |
| Programs attendance | 2.713 | 1 | 2.713 | 13.058 | .000* |
| Error | 81.870 | 394 | .208 | | |
| Total | 7110.642 | 516 | | | |
| Corrected Total | 124.684 | 515 | | | |

*Statistically significant

## Discussion

The main objective of this study was to explore EFL teachers' perceptions of the effectiveness of OPDPs in Saudi Arabia concerning four dimensions: 1) transformational learning for instructional practices; 2) perceptions of OPDP quality features; 3) online participation and duration; and 4) online features and delivery quality. This section provides a detailed discussion of the study's findings concerning the research questions stated in the introduction.

Regarding the first research question, the results found that EFL teachers' perceptions of the effectiveness of OPDPs in Saudi Arabia were relatively high. As shown in Table 3, the dimensions "Transformational Learning for Instructional Practices," "Perceptions of OPDPs' Quality Features," and "Online Participation and Duration" were highly effective. In contrast, the fourth dimension, "Online Features and Delivery Quality," was only moderately effective. This means that EFL teachers in Saudi Arabia had a generally positive attitude towards attending OPDPs during the COVID-19 pandemic. These findings are consistent with previous research on teachers' perceptions of OPDPs in terms of positive effectiveness (Alzahrani & Althaqafi, 2020; Dana et al., 2021; Parsons et al., 2019). An overview of how the attained results for each dimension correspond to existing research follows.

The participants' perceptions of transformational learning for instructional practices were high. Most participants believed that OPDPs demonstrated or highlighted activities they could quickly implement in their classrooms and addressed some of their professional questions or concerns (Alghamdi, 2018; DeAngelis et al., 2013). This contradicts Lewis's (2002) claims that just 10% of what teachers learn at typical PD sessions is ever incorporated into the classroom. It also contrasts Collins and Liang's (2015) observation that participants felt the content of the OPDPs was not easily transferable to their employment.

The participants' perceptions of online features and delivery quality were moderate. The study's findings suggested that OPDPs function was better for participants' schedules than face-to-face encounters, inconsistent with Fishman et al., (2013). Although most survey respondents thought the content of these programs was interesting, a considerable percentage said the OPDPs were boring and had more work than they expected, which might be due to a lack of direct contact or because the environment surrounding them prevents them from completely concentrating on fulfilling OPDP requirements. Furthermore, while most participants felt that the OPDPs delivered a strong theory, they were unclear about how to apply it to their job, which might be attributed to a lack of practical exercise (Lewis, 2002).

In addition, the study findings indicated that the quality features of OPDPs, such as texts, videos, and interactive tasks, may have played essential roles in teachers' perceptions of OPDPs because a high percentage of instructors believe that OPDPs contain an adequate balance of text, video, and interactive tasks (Al-Bargi, 2021; Russell et al., 2009). A high percentage of participants also indicated satisfaction with the efficacy of the techniques and media employed in delivering the programs and program duration. Moreover, most participants spent 4 hours or fewer viewing OPDPs because of the online format's material delivery benefits over face-to-face delivery and because EFL teachers are relatively eager to attend these programs. Finally, most participants viewed OPDPs from home supports our hypothesis that OPDPs overcome time and location obstacles, as Elliott (2017) indicated.

Furthermore, most participants were in the 31-40 year age group, with sufficient instruction, training, and technological experience, in line with other research which highlighted that experienced EFL instructors favour utilising technology more than beginner teachers and are more supportive of the benefits of technology in language instruction (Rosa, 2016). They are also aware of the importance of OPDPs for their career compared to young teachers. Educational level may also significantly influence the desire for PD since most participants had master's and doctoral degrees.

Although the findings of this study showed high effectiveness of OPDPs among EFL teachers during the pandemic, low and moderate efficacy of such programs were found in studies conducted a couple of years before the pandemic (Alghamdi, 2018; Alghamdi & Li 2011; Alzahrani and Althaqafi, 2020). This variance in the effectiveness of such programs might be due to the sudden shift to eLearning because of the pandemic, which helped reshape teachers' perceptions of OPDPs.

The study's findings discovered statistically significant differences in the efficiency of OPDPs between EFL teachers who attended OPDPs and those who did not in favour of the former. The EFL teachers who attended OPDPs felt they were valuable and highly effective, as evidenced by their replies to the four previously indicated dimensions. These results can be attributed to EFL teachers' ability to interact remotely with other EFL teachers outside their local region, thus enhancing their teaching skills and expanding their knowledge through experience sharing. Moreover, this may result from high effectiveness technology-based delivery methods, enabling cross-district collaboration regardless of location. OPDPs can also be an excellent source for obtaining up-to-date teaching skills, particularly during exceptional circumstances like the COVID-

19 pandemic. It has also been noted that OPDPs facilitate teachers in incorporating technology into their work because it requires a degree of diverse technological awareness and skill (Berndt et al., 2017; Erickson et al., 2012; Joshua, 2017; Parsons et al., 2019). However, this observation contrasts with previous findings that teachers preferred future face-to-face PDPs rather than online (Russell et al., 2009).

However, no statistically significant differences were found among the remaining variables of the study, namely gender, age, experience, qualifications and EFL teachers' perceptions of the effectiveness of OPDPs. Although this result is in line with Mahdi and Aldera's study (2013), where no significant differences in teachers' perceptions were found due to such mentioned variables, some contradictory results were found (Hürsen, 2012; Tweed, 2013).

The study's findings revealed that most study participants chose OPDPs over other traditional methods since organisations worldwide are moving to digital solutions in response to COVID-19 (Ahadi et al., 2021). The research also confirms the results of previous studies that a significant number of teachers are aware of the importance and effectiveness of OPDPs. However, this study adds to earlier studies because many participants responded that they did not attend any OPDPs. So, as this and other studies suggest, there is a need to motivate teachers to attend OPDPs to cope with changing teaching and learning environments and be efficient teachers. Doing so would increase teachers' readiness to participate in OPDPs.

### Limitations and Recommendations

Even though teachers had conflicting feelings regarding OPDPs, their expertise and viewpoints gave unique insights into the four characteristics that contribute directly and practically to OPDPs framework research. However, there were some limitations to this study. The first limitation was in the applicability of its results to non-EFL teachers. Being based on EFL teachers alone, the acquired perspectives cannot be reliably transferred to teachers of different subjects, schools, regions, or beyond. The second limitation was the adoption of the quantitative approach. As such, these results could be strengthened by conducting future qualitative research and interviews. The third limitation is that the sample size was insufficient to generalise findings. Future research could potentially evaluate larger samples from other specialities to provide more comprehensive results.

### Conclusion

This study aimed to evaluate the preferences and views of EFL teachers in Saudi Arabia concerning OPDP effectiveness. The results showed that those undertaking OPDPs found them beneficial and appreciated the online learning format. Participants recognised the benefits of OPDPs in enhancing and improving their teaching skills. Furthermore, the results highlighted that EFL teachers had a positive perception of OPDP effectiveness during the COVID-19 period. While the data revealed a significant difference in participants' perceptions of OPDPs based on OPDP attendance, there were no significant differences based on demographic characteristics such as gender, age, experience, or qualifications. These results imply that prioritising OPDPs for EFL instructors in Saudi Arabia may create enhanced proficiency and the capacity to overcome obstacles, particularly in extraordinary situations like the COVID-19 outbreak.

This study also identified literature gaps in OPDP research and potential avenues for future research directions.

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# A Successful Model of Microsoft Teams Online Learning Platform in Vocational High School

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An excellent online learning platform requires a success model in its utilization. During the pandemic, a new adjustment (new normal) was needed in the educational field. It was initiated by providing numerous online learning platforms. Therefore, there are only a few successful model evaluations. Thus, this research aims to (1) determine the effect of Microsoft (MS) Teams and (2) develop a successful model as an online learning platform in Vocational High Schools (SMK). This research used a quantitative approach with the PLS-SEM technique in the data analysis. The collection of data was also carried out via the use of a questionnaire, with a total sample of 430 participants (85 teachers and 345 students) using MS Teams at Vocational High Schools. The results showed that four factors were significantly affecting the success of MS Teams, and these includes the information & system qualities, use, and user's satisfaction. However, these findings were based on the factors which were insignificant to the success of the MS Teams. It was also reported that the factors that supported the MS Teams' operation included the Internet and software specifications. Moreover, additional observations also indicated that one of the supporting factors (SF2) was considered invalid.

*Keywords*: microsoft teams, online learning, PLS-SEM

The 2019 coronavirus (COVID-19) has been reported to have affected the educational field (Abidah, Hidaayatullaah, Simamora, Fehabutar, & Mutakinati, 2020) and learning processes. Since the first case was discovered in Indonesia on March 2, 2020 (Susilo et al., 2020), education has been in the process of adjusting to new habits (New Normal). This new adjustment involves the traditional form of learning (usually carried out in class, face-to-face between educators and students), being replaced with virtual platforms (online), via the use of specific technology to prevent physical contact (Amirullah & Maesaroh, 2020). Therefore, this maintains the safety of both the students and teaching staffs (Czerniewicz, 2020). This new normal has also been discovered to raise various issues in the educational system, such as the students' psychological problems and educators' online learning readiness (Syah, 2020). The pandemic phenomenon has resulted in a search for innovation in the learning process, especially at home (Mahmudah, Putra, & Wardana, 2021).

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Most governing bodies worldwide have temporarily closed educational institutions to prevent the spread of the COVID-19 disease (UNESCO, 2021). Presently, the Indonesian government is still implementing distance learning for students and enforcing work from home and office (WFH & WFO) for academic staff. This implemented policy has had a significant impact, especially on teachers unfamiliar with online learning and information technology, making education becoming non-optimal (Mastura & Santaria, 2020). Moreover, with similar experiences globally, educational institutions in Indonesia also utilized online learning (Goldschmidt, 2020). This process is reported to be safe and effective for both teachers and students in the present situation (Long & Khoi, 2020).

Furthermore, it has been discovered that the technology utilization in the learning process has forced institutions to use the "online-only" exclusivity model for educational purposes (Pal & Vanijja, 2020) without any physical interaction (Lestari & Gunawan, 2020; Putra & Irwansyah, 2020). The digital platform is an innovation in online learning media related to technology utilization in the educational field. By utilizing these platforms, online learning at the primary and secondary school levels tends to change the academic image to a better, effective, and enjoyable direction (Lestari & Gunawan, 2020). The familiar digital platforms used in online learning are WhatsApp, Email, Google Classroom, Moodle, Zoom (Gunawan, Suranti, & Fathoroni, 2020), and Microsoft Teams (Abidin, Rumansyah, & Arizona, 2020; Amirullah & Maesaroh, 2020).

Presently, educational institutions in Indonesia (elementary, middle, high/vocational, and higher education levels) do not use the same digital platform in learning processes, therefore impacting success. However, the learning support platform often used in communicating is the WhatsApp application (Gunawan et al., 2020; Lestari & Gunawan, 2020), considering that all average teachers and students/parents have this communicational channel on their respective gadgets (Lestari & Gunawan, 2020). Also, the considerations of each institution are also based on weaknesses, strengths, and suitability of the digital platform. Therefore, a need for innovation and development of the learning media used is required.

Furthermore, the use of more than one digital platform in several learning processes has been discovered to be the problem involved in online education. Therefore, this causes educational actors (educators and students) to become less effective in utilizing technology in the learning process. Due to this problem, this research subject uses a fairly complete online learning platform by combining all features into one application (Pal & Vanijja, 2020). The digital platform used is Microsoft Teams (MS Teams), which is part of the Office 365 application developed by Microsoft company (Microsoft, 2021). This platform became familiar during the pandemic, as many schools in Indonesia use it to support the learning process.

The research results of Buchal and Songsore (2019) showed that majority of students considered MS Teams to be more effective and easy to learn and use. One of the merits of this digital application is that it has an integrated platform for communication, file sharing, and collaborative writing, with one login account. Another advantage is that productivity and communication are increasingly enriched (Pradja & Baist, 2019). Furthermore, Kumar & Nungonda (2019) survey results showed the satisfaction of using the MS Teams application in collaborative learning. This also collaborates with other

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Microsoft products, namely Sway, Form, and One Note (Handayani & Hadi, 2020), all incorporated in Office 365. Another exciting feature of the MS Teams is video conferencing with good image quality (Suprianto, 2018), which allows students and teachers to meet face to face indirectly.

However, an excellent online learning platform requires a success model in its utilization. Besides knowing the weaknesses and strengths of the platform, a success model should also be used as an evaluation material. Many online learning platforms have only performed few evaluation forms for their success during the pandemic, especially in the information system. Based on this theoretical study, background problems, and strengths of the application, this research seeks to develop MS Teams success model as an online learning platform in Vocational High Schools (*SMK*). Thus, the concept of the initial model and the hypothesis of this study are shown in Figure 1. Therefore, the goal of the current study is to (1) determine the effect of Microsoft (MS) Teams and (2) develop a successful model as an online learning platform in Vocational High Schools (SMK).
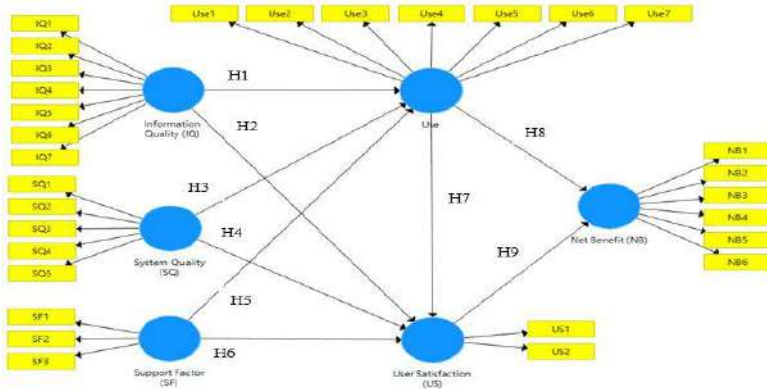


Figure 1 conceptual initial path model (DeLone & McLean, 2003)

## Method

Quantitative approach was used in the data processing of this research. However, the research methods used were Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach, as they examined the relationship between one or more variables. This method series showed the success factors of MS Teams, which supported the development of a successful model framework for using the digital platform.

The subjects involved were users of the MS Teams platform in Vocational High Schools (*SMK*), namely Teachers and Students.Furthermore, The method of sampling in each school was using simple random sampling technique, such as the users of online learning platforms in Vocational High Schools, was also used. The research sample consisted of 85 teachers and 345 students, which summed up to 430 participants distributed over two locations, namely Magelang and Surakarta Cities, Indonesia. The criteria for selecting the population and city samples are referring to the big cities of Central Java Island in Indonesia.

**Table 1**
*Respondent Data*

| attribute sample | | (%) |
|---|---|---|
| total sample | | 100% (430) |
| Status | student | 80% (345) |
| | teacher | 20% (85) |
| Region | Surakarta | 58% (250) |
| | Magelang | 42% (180) |
| gender | male | 88% (380) |
| | female | 12% (50) |
| age | <25 | 82% (351) |
| | 26-35 | 2% (9) |
| | 36-45 | 5% (21) |
| | 46-55 | 9% (37) |
| | >55 | 3% (12) |

Based on Table 1, the total respondents were 430, consisting of 80% students and 20% teachers. The regional-based sample also consisted of 58% and 42% Vocationals, from Surakarta and Magelang. Moreover, the gender aspect was also dominated by 88% male and 12% female. Regarding most respondents from vocational school students, the age factor was dominated by people under 25 years (82%).

The research instrument used was a questionnaire with statement items, which were obtained from studies of DeLone and McLean (2003), Holsapple & Lee-Post (2006), Lee-Post (2009), Rahmat, Seminar, & Surono (2019), as well as Santoso, Bambang, Legowo (2015) with 30 questionnaire items presented in Table 2. These items were used to measure research determinants, which consisted of independent/exogenous (Information & System Qualities [IQ & SQ] and Supporting Factors [SF]), and dependent/endogenous (Use, User Satisfaction [US], and Net Benefit [NB]) variables. Online questionnaire data collection was also carried out via Microsoft Form, within 1 week.

**Table 2**
*Research Instrument*

| No. | Variabel Latent | Code | Indicator | References |
|---|---|---|---|---|
| | | IQ1 | Comprehensiveness | (DeLone & McLean, 2003) |
| | | IQ2 | Written clearly | (Holsapple & Lee-Post, 2006) |
| | Information | IQ3 | Personalization | (DeLone & McLean, 2003) |
| 1 | Quality | IQ4 | Accuracy | (DeLone & McLean, 2003) |
| | (Exogen) | IQ5 | On time | (DeLone & McLean, 2003) |
| | | IQ6 | Relevant | (DeLone & McLean, 2003) |
| | | IQ7 | Up-to-date | (Holsapple & Lee-Post, 2006) |
| 2 | System Quality | SQ1 | Easy to use | (DeLone & McLean, 2003) |
| | (Exogen) | SQ2 | Adaptability | (DeLone & McLean, 2003) |

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| No. | Variabel Latent | Code | Indicator | References |
|---|---|---|---|---|
| 3 | Supporting Factors (Exogen) | SQ3 | Stable | (Holsapple & Lee-Post, 2006) |
| | | SQ4 | Quickly | (DeLone & McLean, 2003) |
| | | SQ5 | Friendly | (Holsapple & Lee-Post, 2006) |
| | | SF1 | Specification | Request schools |
| | | SF2 | Application | Request schools |
| | | SF3 | Internet | Request schools |
| 4 | System use (Endogen) | Use1 | Assignment | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | Use2 | Attendance | (Microsoft, 2021) |
| | | Use3 | Storage | (Microsoft, 2021) |
| | | Use4 | Discussion page | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | Use5 | Script | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | Use6 | Audio | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | Use7 | Video | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| 5 | User satisfaction (Endogen) | US1 | Overall satisfaction | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | US2 | Pleasant experience | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| 6 | net benefits (Endogen) | NB1 | Improved learning | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | NB2 | Empowered | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | NB3 | Effective | (Sukmahidayanti, 2015) |
| | | NB4 | Academic success | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | NB5 | Efficient | (Sukmahidayanti, 2015) |
| | | NB6 | Overall success | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |

Provided the benefits of quantitative study, this research used the Partial Least Squares Path Modeling Method (PLS-SEM) (Boubker, Arroud, & Ouajdouni, 2020; Hair, Risher, Sarstedt, & Ringle, 2019) in analyzing data and testing hypotheses (Janakiraman, Watson, Newby, 2021). Statistical analysis also used the latest version of the SmartPLS 3 application (Al-Maroof & Al-Emran, 2018; Ringle et al., 2015). This conceptual research design adopted the DeLone and McLean information system model (DeLone & McLean, 2003), with slight modifications as needed. The model was selected with the consideration of generally having high suitability and completeness in developing e-learning models within the information systems aspect (Lee-Post, 2009; Rahmat et al., 2019).

This aspect of the research referred to model development via the use of PLS-SEM, which involved a two-step process, such as measurement and structural models, in path designs (Hair et al., 2019; Sarstedt & Cheah, 2019). The measurement analysis model consisted of validity and reliability testing, fits that of the structural was made up of $R^2$, the path coefficient by looking at the original sample value (O), T-statistic, and

model fit (Hair et al., 2019). Also, the structural model showed the path between constructs, while that of the measurement indicated the relationship between each construct and its indicators (Sarstedt & Cheah, 2019).

**Findings And Discussion**

**Findings**
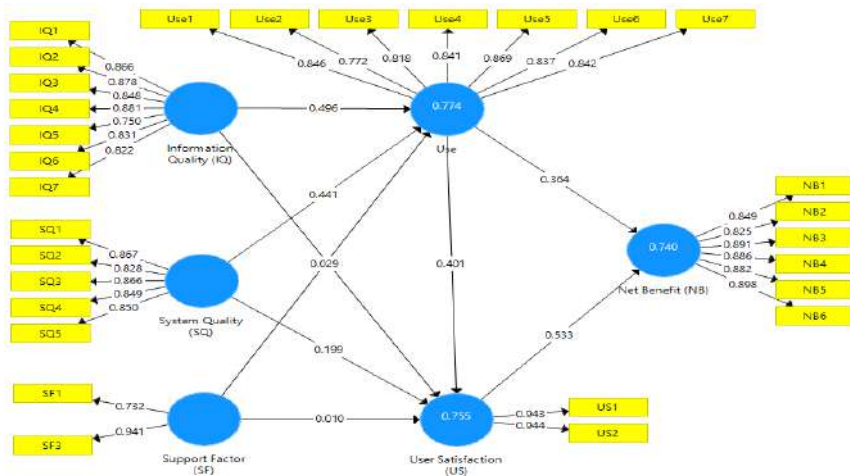


Figure 2 Result of the path model

Based on the analytical results of the data via the SmartPLS 3.3.3 application, the algorithm outcomes were shown in Figure 2. This was displayed in the form of a path model, accompanied by loading factors, endogenous variables, and the relationship between determinants.

**The results of the measurement model analysis**

The first stage result of measurement model analysis was the loading factor value (Figure 2), which showed that the decrease from 30 to 29 indicators was due to the fact that SF2 had an LF (loading factor) sum of < 0.7, therefore leading to its elimination. Moreover, SF2 was an indicator of the supporting factor (SF) latent variable. As regards other applications, this indicator was meaningful to support the MS Teams utilization. However, the analytical results of the questionnaire showed that the value was red or < 0.7, which led to an invalid declaration. Therefore, the indicator was unable to measure the supporting factor (SF) variable. However, after the re-analysis of the 29 indicators, all values were observed to be > 0.7 *(see appendix 1)*. Therefore, it was interpreted that all these indicators could measure each variable.

Examination of the average variance extracted (AVE) value was carried out in the second stage to determine the variable validity. The minimum acceptable AVE was 0.50 or higher, which indicated that the construct determinant explained 50% or more of

the item variants, which were compiled in the variable (Hair et al., 2019).

**Table 3**
*Convergent validity*

| Var | Cronbach Alpha | rho_A | Composite Reliability | AVE |
|---|---|---|---|---|
| IQ | .930 | .932 | .944 | .706 |
| NB | .937 | .937 | .950 | .761 |
| SF | .827 | .829 | .846 | .711 |
| SQ | .906 | .909 | .930 | .726 |
| US | .876 | .876 | .942 | .890 |
| Use | .926 | .928 | .941 | .694 |

Based on Table 3, the convergent validity results consisting of all AVE values on the variables were above 0.5. Therefore, it was stated that the existing variables were valid. Furthermore, the reliability test results were measured via *rho_A* due to the fact that according to Hair et al. (2019), Alpha Cronbach and Composite Reliability were the lower and upper limits for internal consistency reliability, respectively. However, *rho_A* was usually between these limits and served as a good representation for the reliability of the internal constructs consistency, assuming the factor model was correct. Moreover, all *rho_A* reliability values showed > 0.7. Therefore, it was stated that all variables had been measured via the use of reliable indicators.

After completing the measurement as regards convergent validity, the test was then based on discriminant validity. This research used the fonnell larcker criteria form, with the diagonal analysis shown in Table 4.

**Table 4**
*Discriminan validity fonell larcker criteria*

| Var | IQ | NB | SF | SQ | US | Use |
|---|---|---|---|---|---|---|
| **IQ** | **.840** | | | | | |
| **NB** | .771 | **.872** | | | | |
| **SF** | .055 | .052 | **.843** | | | |
| **SQ** | .752 | .708 | .030 | **.852** | | |
| **US** | .810 | .837 | .062 | .772 | **.943** | |
| **Use** | .830 | .809 | .070 | .815 | .833 | **.836** |

Based on Table 4, the diagonal value of the fonnell larcker criteria showed the highest number in each variable. These results then implied that the correlation between these variables was valid.

### The results of the structural model analysis

Structural model analysis was carried out because the results of the measurement method were valid and reliable. This analysis stage consisted of R Square, hypothesis testing, and a fit model (Table 5, 6, 8).

**Table 5**
*Result R Square*

| Var-Endogen | R Square |
|-------------|----------|
| Use | .774 |
| US | .755 |
| NB | .740 |

Based on Table 5, exogenous variables affected those that were endogenous. Use variable produced a value of 0.774 (77,4%), which indicated that it was affected by its exogenous variables (SQ, IQ, SF) and other factors, at 77,4% & 22,6%, respectively. Also, US variable produced a value of 0.755 (75,5%), which indicated that it was affected by its exogenous variables (SQ, IQ, SF, Use) and other factors, at 75,5% & 24,5%, respectively. Furthermore, the NB variable produced 0.740 (74%), indicating that it was affected by the Use and US variables, with other factors outside of this research, at 74% & 26%, respectively.

**Table 6**
*Hypotheses Testing*

| Path | Original Sample (O) | T Statistic (|O/STDEV|) |
|------|---------------------|--------------------------|
| IQ -> Use | .496 | 10.399 |
| IQ -> US | .328 | 5.113 |
| SQ -> Use | .441 | 8.978 |
| SQ -> US | .199 | 3.468 |
| SF -> Use | .029 | 1.144 |
| SF -> US | .010 | 0.333 |
| Use -> US | .401 | 5.657 |
| Use -> NB | .364 | 6.482 |
| US -> NB | .533 | 10.119 |

Based on Table 6, the results of the hypothesis measurement were shown by the original sample outcomes and the T-Statistics. Moreover, the interpretation of the guidelines states that when the original sample value is <0 it indicates a positive effect, while if >0 indicates a negative effect. However, the T-statistic was significant when the value was > 1.96 (Wong, 2019).

**Table 7**
*MS Teams Success Factors*

| No | Factor | Effect | Significance |
|----|--------|--------|--------------|
| 1 | Information Quality | Positive (+) | Significant |
| 2 | System Quality | Positive (+) | Significant |
| 3 | Supporting factors | Positive (+) | Insignificant |
| 4 | Use | Positive (+) | Significant |

| 5 | User Satisfaction | Positive  (+) | Significant |

Based on Table 7, there were five factors with positive effects on MS Teams, namely Information & System Qualities, Supporting Factors, Use, and User Satisfaction. However, not all factors contributed significantly, as the SF (supporting factor) variable had a weak significance contribution to the success of MS Teams.

**Table 8**
*Model Fit*

|  | Saturated Model | Estimation Model |
|---|---|---|
| **SRMR** | .056 | .056 |
| **d_ULS** | 1.347 | 1.370 |
| **d_G** | .832 | .834 |
| **Chi-Square** | 1990.816 | 1994.551 |
| **NFI** | .830 | .830 |

The results of the model fit testing in this research were reviewed from the values of the standardized root mean squared residual (SRMR), and Normed fit index (NFI). SRMR is defined as the difference between the observed and implied correlation matrix models. However, NFI is defined as a measure of incremental fit, which calculates the Chi-square value of the proposed model, and compares it with a meaningful benchmark (Ramayah et al., 2017). The lower the SRMR, the better the model fit, as a standardized root mean squared residual value of 0.08 or lesser is acceptable (Wong, 2019).

Based on Table 7, the SMSR value was 0.056 < 0.08, with the model interpretation being accepted/good. However, the NFI value was 0.83 or 83%, as these results stated that the path model goodness used in this research process was 83%. Therefore, the design development shown in Figure 1 was observed to be a model fit, as indicated in Figure 3.

Therefore, the results of developing an MS Teams use success model as an online learning platform in Vocational High Schools are shown in Figure 3, which had been declared good with a fit value of 83%.
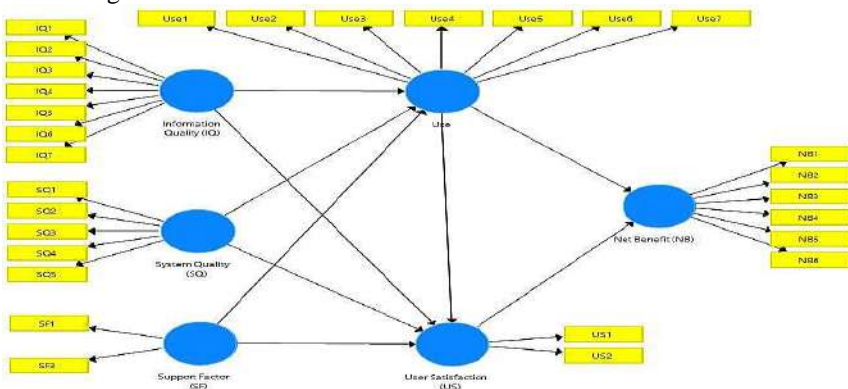
Figure 3 Model Fit

## Discussion

Based on the research results, the factor as a concern for improvement was the supporting factors (SF) variable. These supporting factors are tools and materials that support the continued use of MS Teams. These are in the form of Personal Computer (PC), Laptop, or Mobile. Furthermore, an internet connection to access the platform was reviewed from the quota, as signal at the residential home was needed.

Teachers often used laptops/PCs, which were supported by high internet connections in schools to teach, compared to when WFH, where they usually use cellphones with unstable internet data (Cullinan et al., 2021). They also realized that the data on cellphones were smaller than laptops/PCs, as mobile phones were often used in teaching during emergencies. In this case, it was concluded that the teachers felt the impact of these supporting factors, when WFH with unstable connections.

The minority of them do not have laptops/PCs, therefore relying only on cellphones. Even though MS Teams had an application version that was operated on a cellphone, the need for large data storage also required adequate device specifications. In this case, many students often encountered problems in the need for cellphone specifications, which should support the MS Teams operation in learning in accordance with research from Sophonhiranrak (2021).

Another factor that needs improvement is the internet problem. It is an important part of online learning when using the MS Teams platform due to the fact that it requires being connected to the internet to be accessed. The internet demand for teachers and students in Indonesia had been facilitated by quota assistance through a program from the Ministry of Education and Culture, which started in 2020 until planned for 2021 (Ministry of Education and Culture, 2021). The quota assistance eased students and teachers in accessing MS Teams, even though the internet network stability was still a persistent problem in learning. Also, the place factor in accessing the internet impacted the speed and stability of using MS Teams. Limited access of students to devices and the internet was the focus of online learning in developing countries (Baticulon et al., 2020; Mukhtar et al., 2020; Nepal et al., 2020; Sabahat et al., 2020).

Based on the analytical results, the relationship between these supporting factors (SF) affected the use of MS Teams and user satisfaction (US), as the contribution was very small and insignificant to the success of the application (Table 5). Therefore, this variable needs to be improved for its usefulness to be maximized, especially for the future success of MS Teams.

Referring to the results of this research analysis, there are many factors that should be maximized from the utilization of the platform and its users. Because this platform is an online learning platform by combining all features into one application (Pal & Vanijja, 2020). Information and system quality factors (DeLone & McLean, 2003; Holsapple & Lee-Post, 2006) from the use of platforms in this study have a positive and

significant influence. So that the quality needs to be up to date with its users, namely teachers and students. So that the utilization of existing quality can be used optimally by its users. In line with research (Buchal & Songsore, 2019) that the quality of information and systems with ease, speed and stability are some of the indicators in determining the success of MS Teams for learning platforms, especially in vocational schools.

The next success factor is the use of the platform. According to (Mastura & Santaria, 2020) the use of new information technology that makes learning not optimal at the beginning of the pandemic is a challenge for MS Teams users as a learning platform. However, the results show a positive and significant impact that users of this platform can produce interesting learning by utilizing various existing features from discussions, scripts, audio and video conferences with good image or video quality (Suprianto, 2018). The many interesting features of MS Teams make teachers more choices to develop creative learning and have a positive impact on students.

Satisfaction in the use of MS Teams in this study as a whole showed satisfactory results. Users get a pleasant experience (Rahmat et al., 2019) and become a new thing in the implementation of online learning. The results of this satisfaction are assessed from the quality of information and systems, supporting factors and involvement of MS Teams users. With the results so in line with the results of research (Kumar & Nungonda, 2019) which shows that the satisfaction of using the MS Teams application in collaborative learning.

The use of MS Teams has an impact on the quality of user performance including productivity, increasing academic knowledge and overall successful use. The positive and significant impact in supporting vocational learning shows that there has been successful adaptation in the process of adjusting to new habits (New Normal). Learning which is usually done in the classroom, occurs face-to-face between educators and students.

**Conclusion**

The use of Microsoft Teams as a learning platform for Vocational High Schools showed a positive relationship between endogenous and exogenous variables, which were the information & system qualities (IQ & SQ), supporting factors (SF), use (Use), user satisfaction (US), and Net Benefit (NB). However, there were two relationships with an insignificant effect, namely the supporting factors (SF) on system use (Use) and user satisfaction (US). Therefore, the supporting factor (SF) variable needs to be improved to contribute to the MS Teams' success.

The results on the development of the MS Teams success model was accepted, with a fit value of 83%, as these are expected to become literacy materials for further research. The prospect of further research is to compare the evaluation results in high schools and institutions using MS Teams.

The limitation of this research is that the respondents are still in the context of MS Teams users and have not been distinguished by their status and the scope of the research is only representative of the provincial level.

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## Appendix 1. Research Instrument

| No. | Variabel Laten | Mnemonik | Indicator | References |
|---|---|---|---|---|
| 1 | Information Quality (Eksogen) | IQ1 | Comprehensiveness | (DeLone & McLean, 2003) |
| | | IQ2 | Written clearly | (Holsapple & Lee-Post, 2006) |
| | | IQ3 | Personalization | (DeLone & McLean, 2003) |
| | | IQ4 | Accuracy | (DeLone & McLean, 2003) |
| | | IQ5 | On time | (DeLone & McLean, 2003) |
| | | IQ6 | Relevant | (DeLone & McLean, 2003) |
| | | IQ7 | Up-to-date | (Holsapple & Lee-Post, 2006) |
| 2 | System Quality (Eksogen) | SQ1 | Easy to use | (DeLone & McLean, 2003) |
| | | SQ2 | Adaptability | (DeLone & McLean, 2003) |
| | | SQ3 | Stable | (Holsapple & Lee-Post, 2006) |
| | | SQ4 | Quickly | (DeLone & McLean, 2003) |
| | | SQ5 | Friendly | (Holsapple & Lee-Post, 2006) |

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| No. | Variabel Laten | Mnemonik | Indicator | References |
|-----|----------------|----------|-----------|------------|
| 3 | Supporting Factors (Eksogen) | SF1 | Specification | Permintaan pihak SMK |
| | | SF2 | Application | Permintaan pihak SMK |
| | | SF3 | Internet | Permintaan pihak SMK |
| 4 | System use (Endogen) | Use1 | Assignment | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | Use2 | Attendance | (Microsoft, 2021) |
| | | Use3 | Storage | (Microsoft, 2021) |
| | | Use4 | Discussion page | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | Use5 | Script | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | Use6 | Audio | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | Use7 | Video | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| 5 | user satisfaction (Endogen) | US1 | Overall satisfaction | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | US2 | Pleasant experience | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| 6 | net benefits (Endogen) | NB1 | Improved learning | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | NB2 | Empowered | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | NB3 | Effective | (Sukmahidayanti, 2015) |
| | | NB4 | Academic success | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |
| | | NB5 | Efficient | (Sukmahidayanti, 2015) |
| | | NB6 | Overall success | (Holsapple & Lee-Post, 2006; Rahmat et al., 2019) |

# Analysis of Social Reality of Spousal Relationship Depicted in Pakistan Television Prime time Dramas

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The main focus of this study is placed on depiction of spousal relationship in prime time dramas of Pakistani television channel. In order to collect a quantitative baseline information on the topic, the study utilized message system analysis of the social reality of spousal relationship portrayed in prime time dramas of Pakistani television channel. For probability sampling, a 6-day week was constructed from July 2020-June 2021. The results of analysis revealed that Pakistani prime time dramas show both healthy and unhealthy aspects of spousal relationship. However, unhealthy aspects are shown more frequently than the positive aspects. The present study also concluded that sacrifice, lies, fraud, materialism, criticism and selfishness were more frequently depicted with respect to wives while support, dominance, aggression, infidelity, relationship commitment and romantic gestures were associated with husbands .

*Keywords***:** Pakistani television channel, prime time dramas, spousal relationship.

The central premise of this study is that media has a tremendous influence on society and culture where television is one of the media's most common modes. Though the primary purpose of television is entertainment but at the same time, it is a significant source of learning values and behaviors for many viewers (Boelman, et. al., 2010; Ahmed, 2017). As in the last few decades, television has become the mainstream medium that affects a great deal of what most people think and do. This premise is based on social learning theory and cultivation theory. The social learning theory proposes a model of observational learning i.e. learning by observing others. It implies that in certain situations, an individual learns new behavior by watching other people (termed as models) performing it (Bandura, 1977; Yilmaz & Demir-Yilmaz, 2019). The same is true when applied in context of media. Thus, social learning theory hypothesizes that television models are used by viewers to shape their behaviors in addition to real-life models (Larson, 1993; Isani, 2020). Cultivation theory states that interaction between television characters has the ability to influence the attitudes, perceptions, role-learning, violence and worldviews of audiences (Gerbner et al., 1978; Morgan et al., 2015).

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Douglas (1996) concluded that characters on television are portrayed in a way that they seem familiar and realistic. As a result, television should be considered a powerful socializing tool which has a potential of effecting the psychological health of the audience (Jahangir, Nawaz, & Khan, 2014).

For the current study, Message system analysis (Gerbner et al., 1978) is employed to assess the most illustrative, stable, and repetitive patterns of messages of spousal relationship in Pakistani prime time TV dramas to which Pakistani communities is being exposed for a long time. According to Shanhan and Morgan (1999), TV dramas utilize a specific type of "representational realism" as story-telling in drama which convinces the viewer that under certain circumstances and assumptions, the events depicted might happen in reality (Chamaraman, 2007). In order to examine the social reality of spousal relationship depicted in television, the content of Pakistani prime time dramas has been analyzed. Prime time dramas were selected particularly because they have greater impact on the viewers. The characters in prime time dramas reflect everyday life (Comstock & Strzyzewski, 1990) and provide an insight to an average person's life (Amin et al., 2018; Douglas & Olson, 1995).

Marriage is one of the most essential and fundamental institution in society. It often relates to the psychological and societal well-being (Levenson, et. al., 1994). As discussed earlier, media influences viewers' attitudes, perceptions and responses to daily life situations. The way marital partners interact with one another on television might influence how viewers feel about themselves and their relationships (Comstock & Strzyzewski, 1990). Similarly, television couples and families might be regarded as teaching implicit messages about proper family living. The portrayal of marriage influences how married and divorced persons direct their own marital conduct (Boelman et al., 2010). It is important to note that researchers like Galloway (2013) claim that viewing romantic media creates unrealistic romantic ideals while Johnson and Holmes (2009) claim marriage to be depicted in less romantic and less appealing light. This contradiction might lead to the conclusion that extramarital romantic relationships are depicted in more positive light. Study of Pakistani TV dramas by Rehman, et al., (2019) and Adnan, Hussain, and Nawaz (2020) conclude similar results that these dramas are depicting marital relationships in less favorable manner with increased incidents of marital conflict and infidelity. In light of cultivation hypothesis this could play a direct or indirect role in raising divorce rate in Pakistan. Therefore the current study attempted to derive quantitative and objective results for the depiction of social reality of spousal relationship in Pakistani prime time dramas.

### Significance

In Pakistan, along with other media forms, television is considered a very important source of learning and entertainment. So, public behavior, expectations and responses to problems, strategies, individuals, products and institutes can no longer be understood without connecting them to their most central and prevalent source of learning outlet which is television (Gerbner, et al., 1980).

In most television programs, particularly, prime time drama portrays various familial roles including spousal relationship where television husbands and wives display multiple themes and exhibits certain behaviors. Yet, little is known about such

phenomenon specifically in Pakistan. As it is a major research tradition to investigate the cultivation phenomenon on the basis of presumption i.e. the behaviors and approaches of people in real life are influenced by the roles and content presented in television world. Hence, If it is true then it is necessary and of utmost importance to analyze the content itself which causes change in peoples' perception in real life. So, the research study will figure it out that either it is just a presumption or a reality. This research study will provide an insight into portrayals of contemporary marriage and couple interactions. It is hoped that the findings of this study will serve as a baseline for future studies, providing hypothesis which also attempt to understand marital roles using message system analysis and cultivation analysis.

### Objectives of the study
The objectives of the current study are to:
1. Help generate quantitative data on marital relationships portrayed on television.
2. Analyze and quantify the content related to marital and family behaviors and thus creates a baseline of TV social reality.
3. Generate hypotheses for potential future inquiries.

### Literature Review
The present study is based on Gerbner's work on 'cultural indicators' which used massage system analysis to identify central themes portrayed in prime time dramas. In 1967 under the cultural indictors project, Gerbner recorded and analyzed 1 week US networked dramas annually to identify recurring themes in the programs (Gerbner, et al., 1979). Message system analysis help cultivation researchers to develop hypotheses about people's perception of reality regarding the issues portrayed on televised programs (Morgan & Shanahan, 2010; Scharrer & Warren, 2021).

The televised depictions of marital and romantic relationships can influence public views and expectations of marriage and romance, which in turn affects their married life. Jin and Jeong (2010) proved that drama content had influenced the attitude of North Korean people towards single lifestyle and having fewer children in married life. Another study indicated that TV viewing in general predicted lower commitment in relationships. But romantic content viewing was associated with more conflict engagement and lower satisfaction in relationships (Reizer & Hetsroni, 2014). The depiction of marital relationship varies across drama genres as well as cultures. For instance, a study of East Asian dramas which compared the dramas of 4 East-Asian countries namely, Japan, China, Korea and Taiwan revealed that conflict between marital partners was most prevalent in Chinese dramas while in Japanese dramas the issue was found to be least frequent. On the other hand, Korean dramas topped the list in depicting conflicts among parents and children regarding the issue of marriage and Chinese dramas were at the bottom of the list (Kang & Kim, 2011).

The married couples are also less frequently depicted in romance and romantic comedy genre (Boelman et al., 2010). The genre shows the process of falling in love and the stories mostly ends when the couple enters a committed relationship. These dramas show the lives of married couples less frequently and are depicted as side characters of the story. Lamb (2018) studied intimate relationships in popular teen dramas and

concluded that only 11% of 168 couples were shown married having intimate relationships in those dramas.

Chinese dramas, however tell a different story, Brown et al., (2013) carried out the content analysis of a large sample from entertainment programs aired on 28 Chinese television channels. The analysis of romantic scenes revealed that a roughly equal amount of engagement scenes were depicted between married and unmarried couples. The depictions of infidelity, divorce and relationship deterioration were found to be rare.

Boelman et al., (2010) studied 5 emmy-award winning comedy shows between year 2000 and 2004. The content of these shows was analyzed for positive and negative relational behaviors. They concluded that most of the romantic couples portrayed positive emotional engagement and facilitative behaviors. While, another important aspect of their findings was that not only married couples are shown less frequently in romantic comedy but the instances of affection depicted among them is mostly implied rather than shown directly. Also, they found that negative behaviors of contempt, criticism, and defensiveness are frequently depicted among married couples.

Johnson and Holmes (2009) analyzed relation oriented activities in 40 comedy films to study the beliefs and expectations these activities conveyed to the viewers. Results indicated 82 incidents of deception and 33 incidents of cheating. They also concluded that marriage was often discussed negatively in these movies with either unhappy couples or implied happiness rather than sowing it. Moreover, in a study on the depiction of violence against women by husband formed the second largest category, the first category was of violence by strangers (Santeiro et al., 2017).

Within family dynamics, relationship between spouses themselves is shown to be more distressed as compared to the relationship with their children (Douglas & Olson, 1995). Whereas, the study of specific communicative pattern depicted among family members showed that spouses are mostly shown to communicate by giving or seeking information, or opposing or attacking each other (Larson, 1993).

Research on marital and romantic relationships in Pakistani dramas is infrequent. Most of the researchers focused Islamic values (Shah et al., 2020) and influence of foreign culture on Pakistani media, studying the dress code and language (Faiz et al., 2020), celebrations, liberalism (Manzoor, 2018), portrayal of parents (Ghilzai et al., 2018). Only a few studies focus on specific depictions of romantic and marital relationships. Arafat and Shahzad (2020) claimed that depiction of marriage on media has changed over time. They compared Pakistani Urdu drama serials aired before and after 2000 and revealed that married couple had been depicted in positive light before year 2000. After the year 2000, positive behavior between married couple has been shown infrequently and was replaced with more conflictive behaviors and infidelity. A narrative analysis by (Rehman et al., 2019) revealed that Pakistani dramas showed more negative interactions among married couples and extra marital relationships had been promoted. Naz et al., (2016) used survey method to study public opinion about Pakistani dramas and the results indicated that Pakistani dramas show more negative content. In narrative analysis of Pakistani dramas, Adnan, Hussain, and Nawaz (2020) concluded that scheme of Pakistani drama depicts deterioration of marital relationship and incidents of infidelity.

# SPOUSAL RELATIONSHIP DEPICTED IN DRAMAS

## Method

### Design

This research is conducted in the line with the methodology used by the Cultural Indicators researchers called 'Message System Analysis' (Gerbner et al., 1978). Message system analysis is a flexible tool for making systematic, reliable, and cumulative observations of program content. The technique permits the identification of many aspects of the television world which focuses on the gross, unambiguous, and commonly understood facts of portrayal. These are the features that can be expected to provide bases for interaction and common assumptions among large and heterogeneous mass publics.

### Population and Sample

Probability sample has been drawn of 11 prime time dramas of HUM TV channel from July 2020 to June 2021(latest dramas). A 6-day week was constructed of dramas being televised from 8:00 pm to 10:00 pm for the selected year. Since probability sampling has been employed so dramas telecast on first Monday of July has been selected, while after skipping one month, dramas of first Tuesday of September has been carefully chosen, In the same way dramas from November (first Wednesday), January (first Thursday), March (first Friday), May (first Saturday) have been nominated. Sunday was not included as there was no regular telecast of dramas on Sunday. Detail of sample selection is as under:

| S. no. | Month/Date | Day | Time | Drama Name/ Episode no. |
|--------|------------|-----|------|--------------------------|
| 1. | July 6, 2020 | Monday | 8:00 pm<br>10:00 pm | Tu ho waja/11<br>Qurbaten/1 |
| 2 | September 1, 2020 | Tuesday | 8:00 pm<br>10:00 pm | Kashf/21<br>Qurbaten/17 |
| 3 | November 4, 2020 | Wednesday | 8:00 pm<br>10:00 pm | Tera gham or hum/37<br>Mohabbat tujhay alvida/21 |
| 4 | January 7, 2021 | Thursday | 8:00 pm<br>10:00 pm | Saraab/21<br>Dil tanha tanha/16 |
| 5 | March 5, 2021 | Friday | 8:00 pm<br>10:00 pm | Raqs-e-bismil/11<br>Be adab/16 |
| 6 | May 1, 2021 | Saturday | 8:00 pm<br>10:00 pm | Phaans/11<br>Chupkay chupkay/18 |

### Unit of Analysis

There are 2 specifications about unit of analysis (scene). In the scene other people may be present within the setting but the dominant discussion occurs between spouses as spousal interaction is defined as a communicative act between two marital partners (Husband and wife). The scene in which others (family members, friends or anybody else) are commenting or discussing spouses or spousal relationship is also included. One communicative act may include a number of dialogues delivered by husband and/or wife and/or others (discussing spousal relationship). A single interaction is said to be completed when a communicative act or the setting is changed (Heintz, 1992).

### Coding

Each scene having spousal interaction and discussion about spousal relationship has been coded using a coding sheet. Each incident involving social reality of spousal

relationship depicted in prime time dramas was noted separately. Coding is a way to catalog or categorize text in order to create a context for thematic ideas. In quantitative research, coding is "How you describe what data you are processing" (Gibbs, 2007).

George Gerbner's code book has been used (Gerbner, 1981). Once the instances of spousal relationship and discussion about them was noted, the second step of analysis involved going over these instances and grouping them together to record the frequencies of each variable repeated in selected episodes. For example, all instances of "relationship commitment" were grouped together to see if relationship commitment between spouses is depicted in prime time dramas. Also, who is showing relationship commitment (husband or wife) and do others discuss relationship commitment of a couple?

In present study multiple aspects have been analyzed to know the social reality of spousal relationship which includes Interaction involvement, planning of recreational activities, Dominance, Romantic Involvement, Demonstrating care, Relationship Commitment, Sacrifice, Support, Lies, Fraud/ financial deceit, Intolerance, Divorce, Praise of divorce, Separation, Consensus, Materialism, Violence, Infidelity, Companionship, Aggression, Positivity, Understanding, Self-disclosure, Attacking, Trust, Selfishness, Negativity and conflict (Definitions of said aspects of spousal relationship are attached in Annex-I).

### Intercoder reliability
In order to verify the intercoder reliability of the coding sheet, an intercoder reliability test was carried out by using the Holsti's formula (Lombard et al., 2002)

$$Reliability = \frac{2M}{N1 + N2}$$

It reflects the coding decisions all of the coders have agreed on. According to Wimmer and Dominick (2006) N1 reflects the number of coding decisions made by the first coder and N2 represents the number of coding decisions taken by the second coder. The reliability of the coding sheet was above 90% according to Holsti method.

## Results
Data gathered by message system analysis of prime time dramas was analyzed by applying descriptive statistics in Statistical Package for Social Sciences (SPSS).

For program characteristics, each of the 12 prime time drama episodes (11 dramas) were analyzed for the tone, types of marital relationships depicted as well as the important aspects of spousal relationship. The analysis revealed that 10 out of 11 dramas were serious (absence of comedy). Relationship type in most dramas was monogamous (54.6%), polygamy depicted in 36.4% dramas and only one drama included at least one character that remarries.

Importance given to the aspects of spousal relationship was identified by the amount of attention paid to each aspect (no attention paid to the subject, minor or incidental to the story, significant to the story or focus of the story). The results (table 1) revealed that only 18.2% of the episodes depicted aspect of love and romance as focus of the story, whereas in 45.5% of the selected sample it was found significant to the story.

## SPOUSAL RELATIONSHIP DEPICTED IN DRAMAS

Aspect of negativity and conflict was significant to the story for 63.6% of episodes, while deception and loyalty was significant in 36.4% and 27.3% of the episodes respectively. Divorce and separation was either depicted as a significant part of the story (45.5%). Infidelity was both the focus and significant to the story in 27.3% of the selected episodes and materialism as focus of the story in 36.4% of drama episodes (table 1).

**Table 1**
*Amount of attention (Program wise) given to the aspects of spousal relationship (N=12)*

| Sr. no | Attention paid | Aspects of Spousal Relationship | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Love and romance | Deception | Negativity and conflict | Divorce or separation | Infidelity | Loyalty | Materialism |
| 1 | No attention paid | 9.1 | 18.2 | 0 | 9.1 | 36.4 | 0 | 18.2 |
| 2 | Minor or incidental | 27.3 | 27.3 | 9.1 | 36.4 | 9.1 | 27.3 | 0 |
| 3 | Significant to the story | 45.5 | 36.4 | 63.6 | 45.5 | 27.3 | 27.3 | 45.5 |
| 4 | Focus of the story | 18.2 | 18.3 | 27.3 | 9.1 | 27.3 | 45.5 | 36.4 |

A total of 99 scenes were coded which either showed marital partners interacting directly (54.5%) or referred to the discussion about marital partners by one spouse (31.3%) or by others (15.1%). 89% of the total scenes took place in home settings, 2% at workplace and the remaining 7% was categorized as 'other' which includes hospital settings or police station. There was no reference to the age difference between the spouses and only 5% of the scenes clearly implied difference in socioeconomic background of the marital partners.

Table 2 shows the social reality of spousal relationship depicted directly by spouses and referred to by people other than spouses. 61% of the total scenes showed the interaction involvement (or interest) of spouses in their daily life discussions. Planning of recreational activities of marital partners were depicted in 3% of the total scenes. Dominance was shown in 52% of the scenes and referred to by others in 10% of the scenes (total 62%). Romantic involvement of married couples were depicted in 14% of the scenes, while care and concern was referred in 2% scenes and shown in 40 % of the scenes.

Relationship commitment was depicted in 43% scenes (36% by spouses and 7% by others). Others referred to the sacrifice of spouses in 12% of the scenes whereas it was shown directly by the spouses in 21% of the scenes. Support was shown in 43% of the scenes in which 35% was depicted by marital partners. Marital partners were shown to be lying to each other in 22% of the scenes in addition to 20% of lying referred to by others. 6% of the scenes depicted marital partners to be involved in financial fraud with each other. Intolerance between marital partners was depicted in 23% of the total scenes. Divorce was depicted in total of 11% of scenes with 8% referred by spouses themselves. Whereas divorce was praised by others in 4% of total scenes. Although separation was not discussed or referred to by any marital partner or others but 4% scenes showed separated partners interacting with one another. 18% of the total scenes showed

consensus between marital partners. Materialism was depicted in 21% scenes (16% by spouses and 5% referred to by others). None of the scenes depicted or referred to violence between marital partners in the selected sample. Issue of infidelity was shown in 20% scenes with 16% directly exposed by the spouses and 4% discussed by others. Aggressive behavior of spouses was identified in 30% of the total scenes. Joint activities of marital partners (companionship) was depicted in 8% of the scenes while positivity 11%, understanding of spouses 21% and self-disclosure in 19 % of the total scenes. Depiction of blaming, criticism and belittling by the marital partners in 52% of the scenes has been shown or referred to by others. Trust between spouses was depicted in 38% of the total scenes.

A total of 51% of the scenes showed selfishness of spouses whereas the overall negativity and conflict was prominent in 63% of the scenes with 33% shown by the spouses and 30% referred to by others (about spouses).

**Table 2**
*Overall depiction of multiple aspects of spousal relationship in prime time dramas (N=99)*

| Sr. no. | Aspects of spousal relationship | Total depiction | Shown by spouses | Referred to by people other than spouses |
|---|---|---|---|---|
| | | % | % | % |
| 1. | Interaction involvement | 61 | 61 | 0 |
| 2 | Planning of recreational activities | 3.0 | 1.0 | 2.0 |
| 3 | Dominance between spouses | 62 | 52 | 10 |
| 4 | Romantic gestures by spouses | 14 | 14 | 0 |
| 5 | Care and concern for the spouse | 42 | 40 | 2 |
| 6 | Relationship commitment between spouses | 43 | 36 | 7 |
| 7 | Sacrifice for spouse | 33 | 21 | 12 |
| 8 | Support | 43 | 35 | 8 |
| 9 | Lie to or about spouse | 42 | 22 | 20 |
| 10 | Financial fraud with spouse | 6 | 5 | 1 |
| 11 | Intolerance towards spouse | 23 | 13 | 10 |
| 12 | Divorce | 11 | 8 | 3 |
| 13 | Praise of divorce | 4.0 | 0 | 4 |
| 14 | Separation | 4.0 | 0 | 4 |
| 15 | Consensus between spouses | 20 | 18 | 2 |
| 16 | Materialism | 21 | 16 | 5 |
| 17 | Violence towards spouse | 0.0 | 0 | 0 |
| 18 | Infidelity | 20 | 16 | 4 |
| 19 | Aggression towards spouse | 30 | 26 | 4 |
| 20 | Companionship | 8 | 7 | 1 |
| 21 | Positivity | 18 | 18 | 0 |

| 22 | Understanding | 21 | 21 | 0 |
|----|---------------|----|----|---|
| 23 | Self-disclosure | 19.2 | 19 | 0 |
| 24 | Attacking | 52 | 25 | 27 |
| 25 | Trust in spouse | 38 | 35 | 3 |
| 26 | Selfishness | 51 | 30 | 21 |
| 27 | Negativity and conflict | 63 | 33 | 30 |

Table 3 shows the depiction of each aspect by each spouse separately. Out of 61% scenes, husbands showed interaction involvement in 26% scenes whereas wives showed involvement in 35% of the scenes. 1% scenes showed husband planning recreational activities. Husbands were found to be more dominant with 36% scenes while 16% scenes showed dominance of wives. In 11% scenes romantic gestures were initiated by husbands whereas wives initiated them in only 2% of the scenes.

Wives were found to be showing care and concern for their husbands in 21% scenes and husbands showed care in 19% of the scenes. Similarly, wives were sacrificing in more scenes (16%) than husbands (5%). On the other hand, husbands showed relationship commitment and support in more scenes (20% and 21% respectively) than wives (16% and 14% respectively) and was mostly mutual among marital partners. The number of scenes showing consensus (husband=8%, wife=10%), companionship (husband=4%, wife=3%), positivity (husband=9%, wife=9%), understanding (husband= 11%, wife=10%), self-disclosure (husband= 8, wife= 11), and trust (husband=18%, wife=17%) were roughly similar for husbands and wives.

13% of the scene showed wives lying to or about their husbands while husbands were shown to be lying in 9% scenes. In similar fashion, fraud (husband= 1%, wife= 4%) and materialism (husband= 4%, wife= 12%) was shown to be more associated with wives. Depiction of intolerance (husbands= 6% wife=7%) and discussion of divorce (husband =4%, wife=4%) were found to be nearly equal between spouses. Incidents of infidelity were more common with husbands (13%) as compared to wives (2%). Wives were shown to be selfish in 18% scenes and criticizing and belittling their husbands in 17% scenes as compared to their husbands who were found to be selfish and attacking in 12% and 8% of the total scenes. Aggression was more common on part of husbands (17%) than wives (9%). Negativity and conflict was associated with husbands in 15% scenes and with wives for 18% of the total scenes.

**Table 3**

*Depiction of multiple aspects of spousal relationship with respect to husband and wife separately in prime time dramas (N=99)*

| Sr. no. | Aspects of spousal relationship | Husband | Wife |
|---------|--------------------------------|---------|------|
|         |                                | % | % |
| 1 | Interaction involvement | 26 | 35 |
| 2 | Recreational activities and planning | 1 | 0 |
| 3 | Dominance of one spouse | 36 | 16 |
| 4 | Romantic gestures | 11 | 3 |
| 5 | Care and concern for spouse | 19 | 21 |
| 6 | Relationship Commitment | 20 | 16 |
| 7 | Sacrifice for spouse | 5 | 16 |

| 8  | Support                    | 21 | 14 |
|----|----------------------------|----|----|
| 9  | Lie to or about spouse     | 9  | 13 |
| 10 | Fraud with spouse          | 1  | 4  |
| 11 | Intolerance towards spouse | 6  | 7  |
| 12 | Divorce                    | 4  | 4  |
| 13 | Praise of divorce          | 0  | 0  |
| 14 | Separation                 | 0  | 0  |
| 15 | Consensus among spouses    | 8  | 10 |
| 16 | Materialism                | 4  | 12 |
| 17 | Violence towards spouse    | 0  | 0  |
| 18 | Infidelity                 | 14 | 2  |
| 19 | Companionship              | 4  | 3  |
| 20 | Aggression towards spouse  | 17 | 9  |
| 21 | Positivity                 | 9  | 9  |
| 22 | Understanding              | 11 | 10 |
| 23 | Self-disclosure            | 8  | 11 |
| 24 | attacking                  | 8  | 17 |
| 25 | Trust in spouse            | 18 | 17 |
| 26 | Selfishness                | 12 | 18 |
| 27 | Negativity and conflict    | 15 | 18 |

## Discussion

This research study followed the methodology used by cultural indicators researchers, an ongoing research that has been examining trends in television content and conceptions of social reality since 1969. The Cultural Indicators design consists of two interrelated procedures: (1) message system analysis (2) cultivation analysis. This study used data from annual message system analyses and focuses upon the portrayal of spousal relationship in prime time dramas of Pakistan. The findings of the present study set the stage for future research on cultivation and message systems analysis.

The sample consisted of 11 hum TV dramas aired between 8 pm to 10 pm. The main aspects of the sample revealed that most of these programs lacked any humorous content and were all serious except one drama.

In present study, various aspects of spousal relationship were quantified by calculating the percentage of their occurrences in total of 99 scenes coded. In terms of total depiction, spousal conflict was most frequently depicted aspect of spousal relationship which coded the expression of tension, frustration irritation and resentment. Thus, the findings of the study are in line with the existing literature where negativity and conflict has been shown to be significant to the story in most of the drama episodes. According to Khan, et al., (2020) the depiction of conflictive behaviors between married couples is more frequent in Pakistani dramas. A narrative analysis by Rehman, et al., in 2019 revealed that Pakistani dramas show more negative interactions among married couples and extra marital relationships have been promoted. In a research study on Pakistani drama content, the authors came to the conclusion that the plot of Pakistani

drama revolves around the devastation of marital relationships and instances of infidelity (Adnan et al., 2020).

### Conclusion

The present study generated quantitative data on marital relationships portrayed on Pakistani television dramas. Probability sampling technique was employed to achieve more generalizable results. 6-day week was constructed from July 2020 to June 2021. Most of the results of present study were found to be in line with previous studies conducted on Pakistani dramas. Previous researches on Pakistani dramas have mostly focused on the depictions of negativity in marital relationships, the present study reveals that Pakistani dramas not only depict unhealthy and conflictive relationships, but positive and healthy aspects are also shown but the aspect of negativity and conflict was found more prevalent (63.6%) in the selected sample as compared to positivity (18%). Also, the dominance between spouses, attacking and selfishness was found in more than 50% of the scenes. Another noticeable fact is that infidelity was found to be either focus or an important aspect in 54% of the programs. Lying (42%) between spousal relationships is seen to be a very protruding part in prime time dramas. The present study also concluded that there is nearly an equal depictions of care, positivity, understanding, self-disclosure, intolerance and trust by both marital partners whereas sacrifice, lies, fraud, materialism, criticism and selfishness was more commonly depicted with respect to wives while dominance, aggression, infidelity, support, commitment and romantic gestures were associated with husbands.

Depiction of recreational activities were found to be rare among marital partners (3%). None of the scenes in the selected sample depicted violence. Divorce was however, depicted in some scenes with equal contributions on the part of husband and wife.

### Suggestions and recommendations for future studies

1. As this study only focused on spousal relationship depicted in Pakistani prime time dramas, other familial roles may also be studies in future studies.
2. This study selected sample from HUM channel, it could have extended to other channels as well.
3. Dramas from different genre may be analyzed in future studies.
4. This study generated hypotheses for potential future inquiries and provided a baseline for cultivation studies in the specific genre to come up with valued researches particularly in local cultural settings.

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**Annex-I**

**Code Definition Sheet**
  1. **Name of characters in the scene**
Names of the people included in the scene, among whom the communication is occurring.  Also write the relationship
  2. **Discussion occurred between Spouses**
  3. **One spouse is present in the scene and discusses his or her spouse or marital relationship with others**
  4. **Other people discuss spousal relationship in the scene**
  5. **Location of the scene:** the place where scene occur (home, workplace, hospital, etc.)

6.  **Age difference:** any specific reference that there is an age gap between husband and wife e.g. wife is too young and husband is very old
7.  **Socioeconomic background:** if difference in socio-economic status of both spouses is depicted e.g. specific indication that one of the spouse belongs to an upper socioeconomic status and the other belonged to middle or lower socioeconomic class.
8.  **Interaction involvement:** the level of awareness and responsiveness of a person towards communicative act. Spouses who are involved appear interested and keen to listen to what other spouse is talking about (Cegala, 1978).
9.  **Recreational activities** of spouses such as shopping, playing games, long walks, attending functions(Johnson & Holmes, 2009).
10. **Dominance** is a dyadic variable in which control attempts by one individual are accepted by the interactional partner (Dunbar & Burgoon, 2005).
11. **Romantic Involvement**: Romantic gestures such as gazing, hand holding , giving compliments, etc. (Johnson & Holmes, 2009).
12. **Demonstrating care:** It represents the demonstration of care and concern for marital partner. Gestures include nursing, comfort etc**.** (Johnson & Holmes, 2009).
13. **Relationship Commitment:** defined as the Intention and desire to maintain the relationship in the long term for example, talking about future of relationship, children, giving assurances (Stets & Hammons, 2002).
14. **Sacrifice:** It involves the incidences where both or one marital partner gives up his or her self-interest for the other partner. Examples may include giving up on possessions, wishes.(Ruppel & Curran, 2012).
15. **Support**: It codes for the depiction of assistance and encouragement by one marital partner towards the other. Examples may include asking or giving suggestions, financial help or lending a hand.
16. **Lies:** It includes the incidents wherein a person purpose fully relays information that they know is not true it can be done by avoiding the truth, omitting information or facilitating drawing false conclusion(Barber, 2020). This category does not include lying about financial matters.
17. **Fraud/ financial deceit:** Fraud is the type of deception that includes financial ramification. Examples may include lyingabout money spent, misusing partner's money (Jeanfreau, et. al., 2018).
18. **Intolerance:** The category codes for the incidents where one or both marital partners are unwilling to endure or accept the beliefs or perspectives of other marital partner. (Gross, 2017).
19. **Divorce:** The legal dissolution of a marriage; considered a final end to a marital relationship (August, et. al., 2016; Heltai & Szakolczai, 1988).
20. **Praise for the divorce:** Liking or encouraging the idea of divorce between marital partners
21. **Separation:** The event in which spouses choose to live apart, either temporarily ('trial separation') or as a step in the process to divorce. (August et al., 2016)
22. **Consensus:** It is the extent of agreement among marital partners on everyday issues (Fitzpatrick, 1984).

23. **Materialism:** Tendencies of individual to place more importance for the material possessions than moral values (Lewallen, Miller & Behm-Morawitz, 2016).
24. **Violence:** Depiction of verbal or physical abuse that may cause insult injury or death (Faiz, et. al. 2020).
25. **Infidelity**: it refers to the breach of trust whether emotional or physical. Examples may include pursuing extra marital relationship, showing romantic affection to a person other than marital partner(Thornton & Nagurney, 2011).
26. **Companionship:** joint activities of marital partners are termed as companionship. These activities are independent of other's involvement and includes incidents of being playful together and spending time (Johnson & Holmes, 2009)**.**
27. **Aggression:** Includes expression of aggression e.g. throwing things, use of loud tone (Chamaraman, 2007).
28. **Positivity:** positive affect: This code reflects the overall positive emotional tone in the family. Positivity is assessed by tone of voice, facial expression, and body language. Tone of voice can be happy, excited, upbeat, or satisfied. Facial expressions include smiling, laughing, or looking relaxed (Anderegg, et. al, 2014).
29. **Understanding:** is the ability to sympathize with the other's feelings, having good judgment and being forgiving. it refers to instances of apologizing, not being judgmental, or showing forgiveness to another. (Johnson & Holmes, 2009)
30. **Self-disclosure:** It involves sharing of one's fears, disappointments, feelings and hopes with the other partner (Hawkins, 2012).
31. **Trust:** an expectancy held by an individual or a group that the word, promise, verbal or written statement of another individual or group can be relied upon(Wang, et. al., 2015).
32. **Selfishness:** lacking consideration for others; concerned chiefly with one's own personal profit or pleasure
33. **Negativity and conflict:** Negativity and conflict includes clear expressions of tension, frustration, irritation, and hostility, as well as more subtle forms of negative affect including tension in voice, face, or body, a slightly raised voice, impatience, annoyance, or abruptness (Lindahl & Malik, 2000).
34. **Attacking:** a verbal or nonverbal message directed from one family member to another which is meant to criticize or belittle the other or some other person(Larson, 1993).

# Internal and External Barriers towards Sexual Harassment Prevention Efforts in the Workplace

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The paper delves into the investigation of the internal and external barriers toward female sexual harassment prevention in the workplace. A survey was conducted with 289 employees collected from different industries in Vietnam with the questionnaires relevant to victims' experiences and responses toward sexual misconducts at work, and the internal-external barriers to deter the sexual harassment prevention. The in-depth interviews were conducted to explore women' expectation about sexual harassment-free working environment-oriented policies in their workplace. The results revealed that victims experienced a wide range of sexual harassment types; the victims, especially unmarried girls have experienced sexual harassment more than married women but have fewer responses to the sexual misconduct. A low incidence of sexual harassment claims was also filed to authority due to various barriers, including internal and external ones. Through the interviews, the victims manifested that the comprehensive changes in sexual harassment law and social policies should be consistently made to ensure human rights, and prompt employees' efforts and contribution to work .

*Keywords:* external barriers, internal barriers, prevention, sexual harassment, workplace, prevention.

Sexual harassment has been considered an apprehensive prevalent issue permeating into social activities and entrenched across various industries, not excluded any occupation (Senthilingam, 2017). While other forms of sexual violation, such as sexual abuse, sexual assault and rape are clearly identified, sexual harassment is like the hidden part of an iceberg. Many existing sexual harassment-related problems comprising the victim insufficient awareness of sexual harassment, responding skills, allegations and complaint procedure, and sexual offense laws need to be explored and addressed. Sexual harassment is a common social phenomenon entrenched in women' private lives and is riskily spreading in all working environments, regardless of the urban or remote areas in the world. In a study by Kearl et al. (2019), the prevalence of women experiencing sexual harassment in the workplace makes up to thirty eight percent. Similarly, Puente and Kelly (2018) explore that more than 9 in 10 female employees have been violated by sexual harassment misconducts in several industries. In the research on workplace harassment by Langer Research Associates, there is an alarming fact that despite the significant

contribution to fields of society (Haram, 2021), 33 million women in the United States experience sexual harassment at work (Langer, 2017). Similarly, Feldblum and Lipnic (2016) reveal that the number of women experiencing unwelcome sexual attention and coercion, sex-oriented misconduct, or sexist comments at work accounts sixty percent. Suffered from sexual harassment, victims have negative thoughts and are subjected to devastating financial, physical, and psychological consequences that have a serious impact on their lives and jobs (Mathoma et al., 2006; Chen et al., 2010). A study by Motsoeneng (2021) demonstrates that more and more South African women are exposed to the unprecedented intimate violence and suffer from the serious disease-related consequences.

Although the occurrence of anti-sexual harassment movement, the attention of community and the advance in law against sexual harassment partly contribute to the victim' struggles against sexual violation, the number of claims filed to authority is not enormous. Feldblum and Lipnic (2016) investigate that over 85 percent of the victims of sexual harassment did not file a formal legal charge to authority, and even about 70 percent of the targets of sexual harassment did not make any internal complaint.

It is necessary to take this fact into consideration to work out the drastic measures against sexual harassment perpetration at workplace. The previous studies have basically emphasized the impacts and consequences of sexual harassment on women rights, but have not pointed out the reasons why the sexual harassment prevention did not achieve expected targets. This research aims to identify and clarify the root of the problems properly to be able to promtly propose the effective solutions. Thus, the barriers in deterring sexual harassment prevention have been taken into account. Accordingly, the recommendations about changes in policies and law to protect women rights are enacted. Additionally, with the combination of qualitative and quantitative methods, this study provides a proper insight into the issues.

This investigation on barriers hopefully facilitates employees to impose an obligation on employers to prevent the impact of the misconduct on employees' lives and work in the status of the increasing number of sexual harassment victims.

The paper investigates the internal and external barriers toward the complainants' claims of female sexual harassment in the workplace. A survey was conducted with 289 employees collected from different areas in Vietnam, answering the questionnaires relating to victims' perception and responses toward sexual discrimination at work, the internal and external barriers to deter the sexual misconduct prevention, with the in-depth interviews to explore women' expectation about free-sexual harassment working climate-oriented changes in their workplace. The study emphasizes the following questions:
(1) What are victims' experiences and responses toward sexual harassment in the workplace?
(2) What are the internal and external barriers toward sexual harassment prevention?
(3) To what extent is the female employees' expectation about the changes to orient to an sexual harassment-free working environment?

### Literature Review
### Sexual Harassment

Sexual harassment has been defined in various ways, resting with different perspectives and scopes. However, there has been a consensus that it is a form of social and human rights violations in which the perpetrators use the sexually disagreed and hostile misconduct to force targets to serve their sexual passion (Abeid et al., 2014; McDonald, 2012).  In the same way, Fitzgerald et al., (1997) identify sexual harassment as an offensive unwanted sex-oriented behavior in the workplace that exceeds the targets' resources and threaten their rights.

There are various classifications of sexual harassment. Giardino (2008) classifies sexual harassment into two types: contact and non-contact. While contact sexual harassment involves sexualized behaviors such as kissing, fondling, masturbation and digital or object penetration, non-contact sexual one refers to exhibition, inappropriate observation and producing or viewing pornography or forced prostitution. Pasura et al., (2014) sort out sexual harassment into unwelcome verbal, visual, nonverbal, or physical conducts of a sexual nature. According to the department of veteran safaris, the forms of sexual harassment behavior are categorized into sexual coercion, unwanted sexual attention and gender harassment.

Regarding the targets of sexual harassment, several studies reveal that women are conducive to sexual harassment in comparison men at work. The features like women' vulnerability, less power, and patriarchy tradition in society have been taken into account for this violation (Jones et al., 2010; Pasura, et al., 2014; Steel & Herlitz, 2005). However, the findings do not mean that men are not victims of sexual harassment, although the number of female targets always overwhelms the number of male victims (Fitzgerald & Shullman, 1993; Timmerman & Bajema, 1999). A fact must be acknowledged that more serious impact of the sexual harassment is imposed on women than men (Berdahl, et al., 1996). According to the  estimates found by Ilies et al., (2003) and Aggarwal & Gupta (2000), the incidence of harassed female targets ranges from 24% to 75%, whereas the number of men makes up from 13% to 31%.

Additionally, several studies illustrate that the targets of sexual harassment are mostly younger victims (Lambert & Andipatin, 2014; Sweet & Welles, 2012). The overwhelming evidence present that the younger people are innocent, powerless, and vulnerable to sexual harassment. As a result, no or few of them have the intention of disclosing, reporting or filing claims to authority (Foster & Hagedorn, 2014; London et al., 2008; London et al., 2005; Mathoma et al., 2006;). This cause can be accounted for the increased sexual perpetration.

Respecting the causes of the sexual harassment, various reasons have been taken into consideration. The objective sources from offenders full of sexual desire, from private settings favored for sexuality (Abeid et al., 2014, Lira et al., 1999), from working environment with high power differential (Ilies et al., 2003), and from the industries with the prevalence of male and masculine characterized traditions (Chamberlain et al., 2008; Willness et al., 2007) contribute to urge harassers to perform the misconducts against the victims. Additionally, subjective conditions from victims, including dressing in revealing

ways (Mathoma et al., 2006), the characters "gregarious and easy" (Pasura et al., 2014) facilitate and seduce the predators to engage in sexual actions. Furthermore, the people who witness the painful events, breaks and failure in family such as parental separation, divorce, remarriage that are at more risks of being sexually harassed (Tyler & Cauce, 2002).

In terms of impact of sexual harassment, a number of recent studies have consistently revealed that sexual harassment has negative influence on job satisfaction, performance at work, turnover; harm to mental and physical health, finance, working productivity; organizational commitment, and organizational reputation (Bakker et al., 2011; Chan et al., 2008; Clarke et al., 2016; Fitzgerald et al., 1997; Herschovis et al., 2009; Sims et al., 2005; Willness et al., 2007).

In an investigation on working adults by Clarke et al. (2016), the relationship between job satisfaction and sexual harassment was found to be affected by the status of the harasser in comparison with the peer. Woodzicka and LaFrance (2005) acknowledge that sexually suggestive questions make female interviewees get in more troubles when they are engaged in employment interviews. Chan et al., (2008) identify turnover as another impact of sexually harassed conducts. Under the pressure of sexual violation, it is more likely for female employees to leave their jobs (Willness et al., 2007; Sims et al., 2005). Chan et al. (2008) agree that traumatic stress disorder is an obvious consequence of SH with the symptoms, such as stress, lowered self-esteem, depression, negative thinking and decisions Campbell, (Campbell et al., 2008). Additionally, the financial problems influencing on companies has been posed. In a working environment with SH cases, decreased productivity, increased turnover incidents, reputational harm cost, legal fees, and damages paid are also caused.

### Internal and External Barriers to the Sexual Harassment Prevention
### Internal barriers

It is obvious that filing the claims to authority to address the problems is expected to be an optimal measure to held perpetrators liable for the sexual misconduct and recover women rights. However, the claim procedure to take the offense out public and obtaining the damages is challenging for victims to implement due to the existing barriers. The internal barriers comprise the fear of consequences like intimidation, humiliation, and shame (Vijayasiri, 2008), a lack of belief in the organization's legal enforcement (Harlos, 2001), a shyness and feeling unsafe to struggle in a male-dominated environment (Collinson & Collinson, 1996), or related the concerns including negative responses or judgment, social isolation, stigmas and discrimination (McDonald et al., 2015). Additionally, "blaming the victim" strategy of harassers and employers results in the low incidence of reporting sexual harassment. The cause of the sexual misconduct is also imposed on a number of victims due to by their dressing provocatively or inviting demeanor that arose the predators' curiosity and sexual desire. In a survey by The National Council for Research on Women in 1991, over 50% of female victims in the United States manifested that they are fear of being blamed for the sexual harassment and do not expect any changes from the authority made for their benefits and rights. One more reason leading to underreporting of sexual harassment is the victim's concerns for the harasser who can be held liable for the violation, at risk of losing job and being

ostracized at work. Particularly, according to Carol Gilligan, women are commonly soft, delicate and indecisive so their tendency is to tolerate and overlook the harassers. Not many women are courageous enough to speak out against the bad behaviors. In essence, most of women do not prefer to involve in the challenges, rumor, and public attention. They are afraid of retaliation, which can get their relatives into trouble. One more internal barrier is that several women with motivation to gain the promotion in their jobs makes a bad cultural norm in working environment, in which employers exploit their authority to overcontrol the female employee. Furthermore, the victims are not confident enough in any litigation and are under pressure of losing in the lawsuit. Additionally, insufficient awareness of the role of employers and staff in the responsibility for protecting employees makes them to endure the sexual discrimination (Fitzgerald, and Drasgow, 1996)

### External Barriers.

The low prevalence of underreporting sexual harassment complaints to organizations indicates a big existing challenge to the victim in preventing the problem. The external factors hindering the preventive efforts comprise the organization's ineffective response to the report (Bergman et al., 2002, McDonald et al., 2015); procedural and evidentiary obstacles; financial resources; legal advocacy recourse; current laws with inadequate protection; breaching employment entitlements and agreements, retaliation; heavy cultural bias.

One of the significant obstacles to effective enforcement of sexual harassment claim is the organization's response. Slow implementation and reporting process of employer staff is considered hostile, risky, or ineffective (McDonald et al., 2015). Once the organization does not take action or is too late to address harassment reporting procedures, most victims will have no incentive to speak out and come forward to file claims (Willness et al., 2007)

In some cases, filing a complaint means breaching employment entitlements and agreements that are mostly generated to protect the company reputational visual. Workers must comply the agreements and ensure confidentiality relevant to sensitive matters like sexual harassment. These terms aim to hide the true extent of sexual harassment, isolate victims, shield harassers from being accountable for their actions. When the employees sign an employment decision, they do not specify such the terms cautiously. Thus, once entering any arguments or conflicts of interest with the company, the workers must be faced with a lot of intricacy (Harlos, 2001; Sims et al., 2005)

Procedural and evidentiary obstacles problematize the victim to pursue legal claims that are intricate, expensive, time consuming and go beyond the normal compliance. The burden of proof, the proof of physical and psychological injuries, as well as the obscure procedural requirements to prove that the sexual harassment behaviors are illegal and causes the serious impacts, are imposed on plaintiff who is not sure about Court-imposed standards and conclusiveness of evidence. This fact discourages victims to make sexual harassment claims to authority. That is to say that the accused of harassment are often protected by many procedural due-process rights (Greeson, Bybee, & Raja, 2008; Lambert & Andipatin, 2014;)

Financial resource to pursue a lawsuit is a big challenge the victims have to face. They are naturally vulnerable targets due to the lack of a financial cushion, so their costly litigation, even higher than compensatory damages is really a big problem. This condition provokes the employers to deter their complaints (Abeid, Muganyizi, Olsson, Darj, & Axemo, 2014; Langer, 2017)

Currently, laws relevant to sexual violation provide with inadequate protection for the victims. Most of the misconduct of sexual harassment are under civil laws. Although some actions are considered harmful and traumatic with devastating economic, physical, and psychological consequences, no penalty is released under criminal laws. There are no strict  terms in criminal laws to threaten or warn the harassers, so the efforts of the victims to pursue the lawsuit can end in vain. The laws and systems enacted to address and to prohibit sexual harassment are not effective and beneficial for victims to recover legal rehabilitation and justice (Foster & Hagedorn, 2014; Mathoma et al., 2006).

# Method

## Participants

A survey was conducted with 289 employees from different industries in Vietnam. They are collected from a hidden group of "Secret of Mums and Girls" on Facebook with 890 members.  153 participants (53 %) are married women and 136 (47%) are single or unmarried female employees who have experienced the sexual violation at work. Their ages rank from 21 to 42. They are in-service officers, powerless workers or employers who do not have high position in their workplaces. Their jobs cover from manual labor including construction, textile jobs, or farming to intellectual professions such as journalist, reporter or accountants.

The writer contacted them through messengers and emails. They were provided the description of the study and a consent letter to commit that they agreed and voluntarily participated in the survey. The information of demographic background was also required to provide and keep confidential.

## Research instruments

Questionnaire and interviews are the main instruments used to collect the data. A 36-item questionnaire was generated.  The items were clustered into the following categories: demographics and details of respondents; victims' experiences and responses toward sexual misconduct based on theory by Pasura, et al., (2014) and Giardino (2008); the impacts of sexual harassment grounded on the theory of Clarke et al., (2016) and Chan et al., (2008); the internal and external barriers to deter the sexual misconduct prevention that are referred from Willness et al., (2007) and Chan et al., (2008). Each answer is designed with the options based on  a five-point Likert scale (1.0 –1.79: Strongly disagree, 1.8 –2.59: disagree, 2.6 –3.39: neutral, 3.4 – 4.19: high  to 4.2 – 5.0: strongly agree or Note: 1.0 –1.79:  Never; 1.8 –2.59: Rarely; 2.6 –3.39: Sometimes; 3.4 – 4.19 Often; 4.2 – 5.0: Always).

Snowball and purposive sampling techniques were utilized to collect the qualitative data. The interviews consist of the inquiries about victims' expectation toward the free-sexual abuse working climate-oriented policies in their workplace with the

guideline questions " Do you think the sexual harassment prevention measures in your workplace ensure female employees' rights and are powerful enough to prevent the misconduct? If yes, please provide some evidences. If no, answer the next question:
- What changes should be done by employers and authority to build a free-sexual abuse working environment?

-An inductive qualitative design was applied to accumulate the in-depth understanding of participants in the interviews. Their respondents' information and opinions would be anonymous and confidential by using the symbols or pseudonym.

### Data collection
The researcher collected data in two ways: sending questionnaires in the google form to participants via the links or through emails. The interviewer also conducted the interviews with the interviewees in two ways: direct communication (face to face) or indirect communication (via social networks or mobile phones). Direct conversations were recorded, taken notes and rewritten in writing. The indirect conversation is saved in writing data analysis

### Data analysis
The quantitative data were analyzed with the support of descriptive statistics IBM SPSS 25.0 software. The demographic information of the participants was analyzed, based on frequency descriptive test. Descriptive analyzing tool was used to calculate Mean and Standard deviation values of the frequency of sexual misconducts the victim experienced in the workplace, victims' responses toward sexual misconduct in the workplace, internal and external barriers towards filing claims. Independent test was chosen to compare the difference between unmarried women' and married women's involvement in sexual harassment behavior.

The qualitative data from the digital audio recorders were transcribed verbatim. Then, the data were coded and categorized with the assistance of the QRS Nvivo qualitative computer programme. Transcripts were thematically coded according to the interview questions guides. In other words, the data are segmented into data units and each data unit is labeled with codes that index its analytically relevant content. An interpretive description method was used to analyze the coded data. Coding was performed by a single coder and the consistency of coding was assessed by intra-observer reliability (Krippendorff, 2011).

## Results

The Victims' Experiences Toward Sexual Harassment in the Workplace. The frequency of sexual harassment misconducts the victim experienced in the workplace.

**Table 1**

*The frequency of sexual harassment misconducts the victim experienced in the workplace*

| | Sexual harassment behaviors | Means | Stedv |
|---|---|---|---|
| 1 | Sex-oriented communications through emails, phone calls, notes, text messages, online contacts | 3,57 | ,875 |
| 2 | Physical harassment (touching, crowding, leaning over) | 3,65 | ,939 |
| 3 | Sex-oriented materials/ objects or images | 2,82 | 1,416 |
| 4 | Pressure from higher-powered employers for sexual favors | 3,29 | 1,222 |
| 5 | Pressure from higher-powered employers for dates | 3,18 | 1,397 |
| 6 | Stalking individual's personal life (unwelcome intrusion, physically or electronically) | 2,77 | 1,481 |
| 7 | Sexually suggestive looks or gestures | 3,65 | 1,027 |
| 8 | Sexually oriented conversations in front of others | 2,88 | 1,064 |
| 9 | Preferential treatment in the workplace to be promoted in job in exchange for sexual favors | 3,52 | ,865 |
| 10 | Threats about firing or low earning to meet employers' sexual requirements | 3,64 | ,934 |
| 11 | Verbal sexual harassment (teasing, jokes, comments or questions | 3,84 | ,878 |
| 12 | Rape or sexual assault or attempted rape or sexual assault | 2,26 | 1,437 |

It can be seen from table 1, the participants experienced various sexual behaviors at work. The majority of behaviors (8 out of 12 items) the victims suffer from, including sex-oriented communications through emails, phone calls, notes, text messages, online contacts; physical harassment (touching, crowding, leaning over); sexually suggestive looks or gestures; preferential treatment in the workplace to be promoted in job in exchange for sexual favors; threats about firing or low earning to meet employers' sexual requirements; and verbal sexual harassment (teasing, jokes, comments or questions) stays at high level with Mean > 3.4 and Stedv >0.8 **.** Meanwhile, the behaviors such as sex-oriented materials/ objects or images, stalking individual's personal life (unwelcome intrusion, physically or electronically), sexually oriented conversations in front of others, and rape or sexual assault or attempted rape or sexual assault take the lower rate with M<2.6. The respondents revealed that they are sometimes engaged in the sexual behaviors like pressure from higher-powered employers for sexual favors and pressure from higher-powered employers for dates with M= 3.29 and M=3.18, respectively.

**Difference between unmarried women' and married women's involvement in sexual harassment behaviors.**

With regards to unmarried women' and married women's involvement in sexual harassment behaviors, the independent sample test was employed. The Sig. value of Levene's Test for Equality of Variances is above 0.00, so the values in the equal variances assumed are used to account the results of t test and corresponding confidence interval

**Table 2**

*The ddifference between unmarried women' and married women's sexual harassment involvement*

| | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
|---|---|---|---|---|---|---|---|---|---|
| | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| Equal variances assumed | 1,350 | ,246 | 11,295 | 279 | ,000 | ,570 | ,050 | ,471 | ,670 |
| Equal variances not assumed | | | 11,337 | 277,963 | ,000 | ,570 | ,050 | ,471 | ,669 |

Table 2 illustrates that the Sig. (2-tailed) value of the t-test for Equality of Means is 0.00, smaller than the confidence level (<0.05). This result indicates that there is a slight difference (0.471) in unmarried women' and married women's involvement in sexual harassment. The positive t value in this example indicates that the unmarried women's involvement is significantly greater than the married women's involvement. The lower difference that could be found in the table is 0.471 and the highest difference is 0.670. It turns out that due to the specific reasons, unmarried women tend to be more conducive to sexual harassment in the place work compared to married female employers.

**Female victims' responses toward the sexual misconduct in the workplace**

It was found that there are different responses to sexual harassment behaviors. Table 3 indicates the victims' specific actions in response to experiencing sexual harassment.

**Table 3**

*Victims' responses towards sexual misconducts in the workplace*

| No | Victim responses | Means | **SD** |
|---|---|---|---|
| 1 | Keeping silence and letting him be | 3,57 | ,875 |
| 2 | Keeping silence and avoiding the harassers | 4,25 | ,939 |
| 3 | Asking friends for help | 3,43 | 1,394 |
| 4 | Asking the harasser to stop | 3,37 | 2,90 |
| 5 | Threatening the harassers | 2,90 | 1,247 |
| 6 | Speaking out the situation to everyone | 3,04 | 1,420 |
| 7 | Reporting the behavior to the supervisor | 2,84 | 1,275 |
| 8 | Filing a formal complaint to authority | 2,62 | 1,197 |
| 9 | Changing jobs | 2,52 | ,865 |
| 10 | Ignoring the behavior or did nothing | 3,64 | ,934 |

*Note*: 1.0 –1.79 Strongly disagree; 1.8 –2.59 Disagree 2.6 –3.39 Neither agree or disagree; 3.4 – 4.19 Agree; 4.2 – 5.0 Strongly agree

Ranking the first positions with the highest agreement from participants is keeping silence and avoiding the harassers with M=4.25 and Stedv= 0.939. Succeeding this ranking is ignoring the behavior or did nothing (M=3,64 & SD= ,934), keeping silence and letting him be (M=4.25 & SD= 0.939). Meanwhile the misconduct including threatening the harassers (M=2,90& SD= 2,90), reporting the behavior to the supervisor (M=2,84& SD= 1,275), filing a formal complaint to authority (M=2,62& SD= 1,197), and changing jobs (M=2,52& SD= ,865) gain the lowest agreement from respondents.

### Internal and External Barriers toward Sexual Harassment Prevention
**Victims' evaluation toward Internal and external barriers of sexual harassment prevention**

Table 4
Internal and external barriers towards sexual harassment prevention

| Barriers | Barriers | Means | St.dev | Weighted-means |
|---|---|---|---|---|
| **Internal barriers** | lack of belief in the organization's legal enforcement | 3,80 | ,819 | |
| | fear of intimidation or retaliation | 3,47 | ,716 | |
| | feeling unsafe and unfair to struggle in a male-dominated environment | 3,45 | ,703 | 3,56 |
| | Being ashamed | 3,71 | ,677 | |
| | social isolation, discrimination | 3,45 | ,754 | |
| | women' delicate and peace-oriented nature | 3,49 | ,770 | |
| **External barriers** | a heavy cultural bias | 3,33 | ,698 | 3,49 |
| | procedural and evidentiary obstacles | 3,80 | ,857 | |
| | current laws with inadequate protection | 4,05 | ,703 | |
| | legal advocacy counselling | 3,62 | ,720 | |
| | violation of employment entitlements and agreements | 3,36 | ,744 | |
| | organization's ineffective response to the report | 3,49 | ,637 | |
| | Retaliation | 3,25 | ,862 | |
| | financial resources | 3,03 | ,901 | |

As drawn from Table 4, the extrinsic barriers towards sexual harassment prevention are higher than intrinsic ones among the obstacles of sexual harassment prevention with M = 3,56, and M = 3,49, respectively, which illustrates a fact that the victims consent to the difficulties of heldholding sexual harassers accountable. Additionally, the standard deviation indicates that there was a slight difference in respondents' viewpoints. With respect to intrinsic barriers, the participants exhibited their assent to all barriers in which the lack of belief in the organization's legal enforcement and being ashamed take the highest rate (M = 3,80, SD = 0.819 & M = 3,71, SD = ,677). Succeeding this rank is the items comprising the fear of intimidation or retaliation; feeling unsafe and unfair to struggle in a male-dominated environment; social isolation, discrimination; women' delicate and peace-oriented nature with M>3.40

Regarding the extrinsic barriers, participants identified current laws with inadequate protection as the most challenging factors in progressing their learning with M=4.05 meanwhile financial resources barrier is mostly unproblematic with the lowest

mean values (M=3.03, M=901). It is believed that barriers such as procedural and evidentiary obstacles, legal advocacy counselling, and organization's ineffective response to the report are also influential factors to sexual harassment prevention. Whereas, respondents kept neutral opinions on the barriers including heavy cultural bias, violation of employment entitlements and agreements, and retaliation. Additionally, the high standard deviation values (SD> 0.6) illustrate that there were not many differences in participants' viewpoints.

**Correlation of Barriers with Complaining Levels and Working Motivation.**

**Table 5**
*Correlation of barriers with complaining levels and working motivation*

| | Coefficients | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Unstandardized Coefficients | | Standardized Coefficients | | | Collinearity Statistics | | |
| Model | B | Std. Error | Beta | t | Sig. | Tolerance | VIF |
| 1 Working motivation | 2,089 | ,152 | | 13,758 | ,000 | | |
| External barriers | ,270 | ,036 | ,378 | 7,464 | ,000 | 1,000 | 1,000 |
| Internal barriers | ,270 | ,038 | ,361 | 7,124 | ,000 | 1,000 | 1,000 |

As documented from Table 5, the value Sig. of the variables (complaining levels, working motivation, internal barriers, external barriers) are below 0.05, so the values are satisfactory to be taken into account for the regression correlation. Apparently, the value of Coefficients ViF values of the variables (internal barriers, external barriers) are smaller than 2, so there is no multicollinearity in this model. The values of Beta regression coefficients are higher than 0.0. This means that all the independent variables have the one-way impact on the dependent variable. Going in to more details, the Beta value of the internal barriers has the more influence on working motivation (Beta=0,378) while external barriers impact working motivation less, with Beta = 0,361. In short, the hypothesis "There is not any correlation of working motivation, internal barriers and external barriers" is rejected. In another way, the correlation of working motivation, internal barriers and external barriers exists. In this test, the data also denote that the internal barriers have less impact on complaining levels with Beta value at 0,103. Meanwhile, the correlation between external barriers and complaining levels is higher with Beta value at 0.149.

**Female Employees' Expectation About the Changes For An Anti-sexual Harassment Working Environment**

The in-depth interviews revolve around the women' expectation about the changes in perceptions, policies and laws to stymie sexual harassment and encourage the victim to come forwards with claims. To exercise the victim expectation, there needs to be a comprehensive solution from the individual's own perception to organization's system reform.

Regarding upgrading the perception of victims and harassers, the participants acknowledged that there are still legal knowledge gaps and negative attitude toward the role of women in society and the sexual harassment occurrence at work:

> We feel that there is no justice for the lower-level female employees. Women seem to be born to tolerate the gender inequality. So, we take the sexual misconduct of the employers for granted. That is to say that we cannot change anything for better results, so accept it as a rule of life. (V.A, 26 years).

It seems that the endurance permeates into low-income laborers' perception and it becomes negative culture among healthy working environment culture:

> No resisting and letting everything be has become common responses when women are harassed. They kept their stories in silence and took no action, which facilitates perpetrators to keep their behaviors with the others. The key to prevent the misconduct from the first stage lies in the victims' hands. So, they must change their thinking and perception. They must assert their roles and their rights in society. The endurance will worsen harassment prevention from the others. We must fight against the harassers. Sexual harassment is a form of social and human rights violation (T.G, 31 years).

Eliminating the employer-imposed secrecy about sexual harassment as a vital preventive measure should be taken in the work place to warn the perpetrators that their bad behavior will come out and claimed to the higher power organization to address the issues: "It is necessary to take the drastic punitive measures toward to the harasser to expel sexual harassment conducts from the workplace in order to ensure a safe and antiharassment working environment". Many victims complained that although we tried to overcome the barriers to file a claim to authority, they did see no punishment or repercussions on the harassers. One of the common reasons stymying employees from making complaints to authority is the poor knowledge and misperceptions toward sexual harassment. They do not regard the misconduct as the violence of women rights or sexual discrimination, so the sexual victimization is not addressed intensively and seriously.

Requiring employers to take steps to prevent sexual harassment. From the experience, the participants revealed their expectations about their organizations' accountability in preventing the occurrence of sexual harassment at work. The organizations should be held liable for sexual violation in their companies and ensure that all workers are protected from sexual harassment:

> When being employed into the office, we were in agreement with the leader staff about the working requirements and the employers ensured that we would be paid for our contribution and be protected from the risks. So, when we are harassed, employers should be responsible for that. We need the support of coworker, supervisor and leaders. (T.L, 27 years).

N (30 years), an accountant, argued that short training courses on interpersonal and communication skills should be held to reinforce the employers' proper responding ability to the situations. This recommendation is strategic for harassment prevention. Training programs should offer to all kinds of employees as a preventative mechanism

with the content relevant to emotional management skills, assessment of risk factors and appropriate responses to the misconducts.   Complaint systems should be reformed to make it easier for workers to come forward to report sexual harassment. The elitigation on the litigation process in terms of burden of proof and evidence or financial issues will be beneficial for victims. H.G (26 years) acknowledged "it is so hard for us to pursue a lawsuit as filing a claim is complicated. It consumes us much time and money. And, I am not sure if my claims get the concern from authority or not".

## Discussion

This study sheds light on the investigation of the internal and external barriers toward filing complainants' claims of female sexual harassment in the workplace. The results from the quantitative and qualitative data provide the in-depth and proper information. The quantitative results referred from the survey explores the comprehensive description of the sexual harassment status. The findings revealed that victims usually experience a wide range of sexual harassment forms. Due to the specific reasons, unmarried women tend to be more conducive to sexual harassment in the place work compared to married female employees. It is obvious that the targets of sexual harassment are usually younger victims. The overwhelming evidence presents that the younger people are innocent, powerless, and vulnerable to sexual harassment. This result is in align with the study by (Lambert & Andipatin, 2014; Sweet & Welles, 2012). The study also indicates that few or no responses based on claims toward sexual harassment in the workplace are filed to authority to solve. This conclusion is in accordance with the findings of (Foster & Hagedorn, 2014; London et al., 2008; London et al., 2005; Mathoma et al., 2006;). With respect to the correlation of barriers with complaining levels and working motivation. The data denote that the internal barriers have less impact on complaining levels. Meanwhile, the correlation between external barriers and complaining levels is higher. The qualitative data also reveal the impacts of sexual harassment on the employees' lives and jobs, for instance job satisfaction and organizational commitment, task performance, turnover, physical and mental health, financial consequences, and escalation of sexual misconduct. The findings are in consent with the investigation by Woodzicka and LaFrance (2005), Sims et al., (2005), Willness et al., (2007), and Chan et al., (2008).

The qualitative data is also a significance of this study, through which the employee's attitude, feeling and expectation is clearly demonstrated. The respondents expressed the expectation about the changes in perception toward sexual harassment, women-protection policies and sexual offense laws to stymie sexual harassment and encourage the victim to come forward with claims. Regarding upgrading the perception of victims and harassers, the participants acknowledged that there are still legal knowledge gap and misperceptions toward sexual harassment occurrence at work. Thus, they need exchanging knowledge and laws relevant to sexuality. Additionally, requiring employers to take steps to prevent sexual harassment is vital. From the experience, the participants revealed their expectation about organizations' accountability in preventing the occurrence of sexual harassment at work. short training course on interpersonal and communication skills should be held to reinforce the employers' proper reaction ability in the emergency situations. Complaint systems should be reformed to make it easier for workers to come forward to report sexual harassment. Through the interviews, the victims manifested that the changes in sexual harassment prevention policies should be

consistently made to prompt their effort and contribution to work. One of the common reasons stymying employees from making complaints to authority is the poor knowledge and misperceptions toward sexual harassment. A large number of female workers do not believe that they are victims of sexual violation because sexual harassment does not cover the sexual penetration (Anderson et al., 2004; Choo et al. 2011). Several employers believe that no punishment or repercussion on the harassers would be implemented (Langer, 2017; Salin, 2009).

### Recommendation

Identifying the barriers to stymie the employees from coming forward to file the claims to the authority, the activists for women's policy need to have comprehensive solutions to prompt the employees to struggle against the sexual harassment in the workplace. The measures taken should cover the issues relevant to employee psychology and perceptions; reaction skills, sexuality law, womanist wealth and safety-guarantee policy and sexual harassment complaint mechanisms.

Regarding the employee psychology and perceptions, there should be more sexual violence knowledge–upgrade indoctrination and propaganda addressed to all female workers in every industry to broaden their insighted understanding about sexual harassment, laws, policy and rights related to sexual harassment situations. These underlying grounds support the employees to have sufficient confidence to take actions against sexual violence. Especially, in serious cases, they can file claims to the higher-power organizations with adequate legal resource to win a lawsuit.

With reference to the suggestions related to reaction skills, it is vital to maintain the skills training course, conferences, contests, or clubs including activities for exchanging knowledge or laws, for generating supposed situations or sharing the experiences that help female employees implement strong prevention and response strategies, overcome the sexual harassment situations in the best ways. In essence, women are always vulnerable to negative outside impacts. The overwhelming evidence of woman's vulnerability has been clearly shown in the patriarchy tradition and power imbalance in the workplace. Womanist wealth and safety-guarantee policy should be concerned to ensure that the employee-living conditions are improved, which is likely to lead to a decreased incidence of the employees involved in the sexual harassment.

Human rights laws and anti-discrimination regulations, as well as sexual harassment prevention policies should be seriously taken into consideration to hold the employers and harassers liable for the misconduct and protect the victims. The titles in laws on sexual harassment should focus on the appropriate penalties imposed on the perpetrators. The current laws are not stringent enough to make the predators to be afraid of being penalized and waive the bad intentions on vulnerable women. Additionally, if supervisors are explored to have exploited their power over their subordinates to perform the corrupt conducts, gain the immoral goals against the victim or make retaliation including firing, demotion, or a pay cut, a heightened legal obligation should be offered to them. Besides, punitive damages for the victims of harassment are mostly insufficient to compensate for the mental, financial and dignity harm they have to suffer from. With such limited punitive remedies, the victim is discouraged to struggle against sexual

violation in the workplace, meanwhile the harassers are facilitated to engage in the criminals with more incentives and negative motivation.

In terms of complaint system reform, the fairness, accessibility and affordability are required in order to support and facilitate the victim to file complaints to the court, including reducing the burden of proof, extending the time limits for bringing claims and resolving the finance source to pursue a lawsuit. The fact is that the victim has several difficulties in collecting the proof as the physical harm evidence from the victims and the witnesses is usually not obvious and inconclusive to hold the court session. Most of the injuries happen to mental health which is hard to measure and check the status and harm levels. So, the laws may base on the consequence levels of the mental injuries on the job performance and private lives as the legal grounds to convict the accused. The court should accept the evidence recorded by recorders, cameras or messengers. The organizations and unions should effectively participate in the victims' sexual harassment complaint mechanisms to offer them legal recourse, financial support and claim-filing process consultancies to prompt them to pursue the complaints.

### Conclusion

The paper concludes that victims usually experience a wide range of sexual harassment misconducts including sex-oriented communications through emails, phone calls, notes, text messages, online contacts, physical harassment, pressure from higher-powered employers for sexual favors, pressure from higher-powered employers for dates, stalking individual's personal life, sexually suggestive looks or gestures, sexually oriented conversations in front of others, preferential treatment in the workplace to be promoted in job in exchange for sexual favors, threats about firing or low earning to meet employers' sexual requirements verbal sexual harassment (teasing, jokes, comments or questions, rape or sexual assault or attempted rape or sexual assault. Due to the specific reasons, unmarried women tend to be more conducive to sexual harassment in the workplace compared to married female employers. The study also indicates that few or no responses based on claims toward sexual harassment in the workplace are filed to authority to solve.

The data also denote that the internal barriers have less impact on complaining levels. Meanwhile, the correlation between external barriers and complaining levels is higher. The qualitative data also reveal the impacts of sexual harassment on the employees' lives and jobs, for instance job satisfaction and organizational commitment, task performance, turnover, physical and mental health, financial consequences. The in-depth interviews about women' expectation in changes in policies and laws to stymie sexual harassment and encourage the victim to come forward with claims. To exercise the victim expectation, there needs to be a comprehensive solution from the individual's own perception to organization's system reform.

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# Identifying Metacognitive Listening Comprehension Strategies of Saudi ESP Students

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This research aims to find out the metacognitive listening comprehension strategies (MLCS) of 320 (178 males and 142 females) Saudi English for Specific Purposes (ESP) students using the Metacognitive Awareness Listening Questionnaire (MALQ) in a Preparatory Year Deanship. The descriptive statistical analysis of the data showed that participants employed problem-solving, directed attention, and person knowledge more (higher-moderately) than planning and evaluation and mental translation (lower-moderately). For females, the dominant set was problem-solving, and for male participants, it was the directed attention sub-scale. The least preferred group by both genders was mental translation. On the independent samples t-test, there was no statistically significant difference between the means of sub-scales and the overall means of male and female ESP learners (except for mental translation). It implies that both sexes were not much different in using the MLCS while listening to ESP texts. They approximately used the strategies equally. Recommendations were made for students, instructors, and syllabus designers to integrate explicit metacognitive instructions for preparing, planning, managing, monitoring, assessing, and reflecting on ESP listening activities .

*Keywords*: MALQ, metacognitive listening comprehension strategies (MLCS), metacognition, Preparatory Year Deanship,

Listening skill is indispensable for learning a language (Rost, 2001). It comes first in the line of succession among all language skills (Ratebi & Amirian, 2013) and, by providing vital inputs for the development of reading, speaking, and writing proficiency (Renukadevi, 2014), it helps foster communicative competence (Yildiz & Albay, 2015). It is not only the most commonly employed ability in the classroom (Vogely, 1998, as cited by Namaziandost et al., 2019) but also in daily life (Shariyevna & Israilova, 2020), which consumes up to 40–50% of our total communication time in comparison to other skills (Adler et al., 2021; Mendelsohn, 1994, as cited by Al-Alwan et al., 2013).

Despite the cardinal role of the listening skill, it is often disregarded by EFL/ESL instructors (Field, 2009) and neglected by learners. In addition to that, many

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learners barely know how to listen effectively. This situation creates obstacles to developing their language proficiency. Many learners fail to acquire the language properly. As a result, they cannot interact in English inside and outside the classroom and do poorly on their exams, which can be a source of anxiety and frustration in language learning (Arnold, 2000; Graham, 2006; Öztürk, 2021), and pose a challenge. Since listening is such an important skill, it should be given special care in learning and teaching it. Scholars have proposed different techniques to develop listening proficiency. One way to assist learners to improve their auditory competency is to educate them on effectual strategies and make them conscious of their cognitive processes in listening. These strategies facilitate the learning process and make it more enjoyable, self-directed, and efficacious (Oxford, 2013). In the absence of these strategies, listening comprehension becomes difficult, problematic, and ineffective (Mendelsohn, 2006). Therefore, learners should be mindful of strategies to develop better listening comprehension. This awareness and monitoring process is called 'metacognition' (Mokhtari & Reichard, 2002), and these strategies are termed 'metacognitive strategies'.

Many researchers have recently acknowledged and verified that students' listening comprehension is supported and improved by inculcating metacognitive strategies (Al-Alwan et al., 2013; Bidabadi & Yamat, 2011; Chang, 2013; Esmaeili et al., 2017; Goh, 2014; Rahimi & Katal, 2012; Ratebi & Amirian, 2013; Selamat & Sidhu, 2011; TafarojiYeganeh, 2013; Vandergrift, 2003). They claim that if learners are aware of metacognitive strategies, they will deal with difficulties in listening more actively and consciously rather than simply giving up (Goh, 2000). Oxford (2013) also asserted that metacognitive strategies help arrange the state for learning, setting short-term and long-term goals and checking students' understanding of the content during listening activities. Similarly, Read and Barcena (2015) maintain that for the development of listening comprehension, metacognition is crucial and, therefore, should be integrated into any framework of SLA both explicitly and implicitly.

English for Specific Purposes (ESP) orientates itself towards English language instruction needed for specific situations, typically related to occupational settings (Salmani-Nodoushan, 2020). It is different from English for General Purposes (EGP) (Wingate, 2015, as cited in Yu & Liu, 2018) in teaching methods, context, and learning conditions. It is influenced more by psychology than linguistics (Hutchinson & Waters, 1987, as cited in Moafi, 2020). It is more concerned with how learners learn the language than how content is delivered. Also, most ESP teachers prefer top-down activities to bottom-up ones as ESP learners must recognize the topics, identify keywords to understand vocabulary, grammar structures, and answer comprehension-based questions (Cheng, 2016, as cited in Yu & Liu, 2018). Activities such as making guesses, predicting, listing, and ordering information are also part of ESP. For listeners, background knowledge of the context, topic, and speakers is a prerequisite for this approach. Therefore, the implications of metacognition in the context of ESP are very promising.

It would not be unfair to mention that most ESP books emphasize developing just reading and writing skills. Consequently, students have inadequate real-life communication skills, i.e., speaking and listening. Apart from this, ESP learners have a low level of metacognitive abilities required for successful language learning (Aziz et al., 2011; Terzić, 2015). Therefore, students' listening activities should incorporate

metacognitive strategies to help them become efficient learners. By increasing the learners' knowledge of metacognitive strategies, they will become motivated to control their learning processes by following the stages of planning, monitoring, and evaluating (Vandergrift, 2002, 2003) in ESP situations. As ESP syllabuses accommodate the needs and demands of future professionals, Widdowson (1983; as cited in Nasim & Mujeeba, 2021) suggests integrating the techniques that help students develop their learning strategies and styles for ESP to achieve the intended goals.

Teaching and learning ESP are not the same as ESL/EFL (Chen & Hung, 2015). ESP students have different objectives, interests, and unique characteristics. They adapt and adjust themselves when they start studying ESP (Nasim & Mujeeba, 2021). Therefore, identifying and making them cognizant of metacognitive strategies will be fruitful.

### Theoretical Framework and Literature Review

Listening comprehension is a complex process. To comprehend the oral messages, a listener engages himself actively in many mental tasks and utilizes a number of mental processes. These mental processes are called 'listening strategies'. There are four types of these strategies: cognitive, metacognitive, affective, and social. The mental abilities and processes associated with knowledge are referred to as 'cognitive listening strategies'. The capacity to comprehend one's own manner of learning and integrating information is referred to as metacognitive techniques. Affective strategies are focused on emotion management, and social strategies deal with learning by interacting with others (Bao & Guan, 2019).

Several studies have underlined how metacognitive strategies have affected the process of second language learning, and their effects are reflected in planning, processing, and evaluating learning. There is a strong relationship between metacognitive involvement and learners' variables such as academic performance (Rezvan et al., 2006; Vrugt & Oort, 2008;), motivation (Abdelrahman, 2020; Abdelshiheed et al., 2020), learning styles (Zarrabi, 2020), gender (Bacon, 1992, as cited in Gilakjani & Sabouri, 2016; Vandergrift, 1997), and unskilled and skilled L2 students (Bacon, 1992, as cited in Gilakjani & Sabouri, 2016; Goh, 2000; O'Malley & Chamot, 2012) producing positive results in L1 and L2 listening. Research focusing on metacognitive differences between males and females showed that females were constantly more informed of metacognitive strategies than males (Akin, 2016; Bacon, 1992, as cited in Gilakjani & Sabouri, 2016; Fayyaz & Kamal, 2014). On the contrary, Niemivirta (1997) and Mahmud and Nur (2018) witnessed quite the opposite. Osa-Omoregie and Musa (2017) recorded higher mean scores for males and females. Moreover, Mohseny and Raeisi (2009), Mohamed (2012), and Memnun and Akkaya (2009) reported no significant difference between the two.

Many quantitative and qualitative methods to explore the MLCS have been developed. Still, among the quantitative methods, the Metacognitive Awareness Listening Questionnaire (MALQ) developed and standardized by Vandergrift et al. (2006) is the most popular. It is deeply rooted in the theory of metacognition proposed by Flavell (1976, 1979). His metacognitive framework of learning can be represented as follows:

**Figure 2**
*Metacognitive Framework based on Flavell (1976, 1979)*
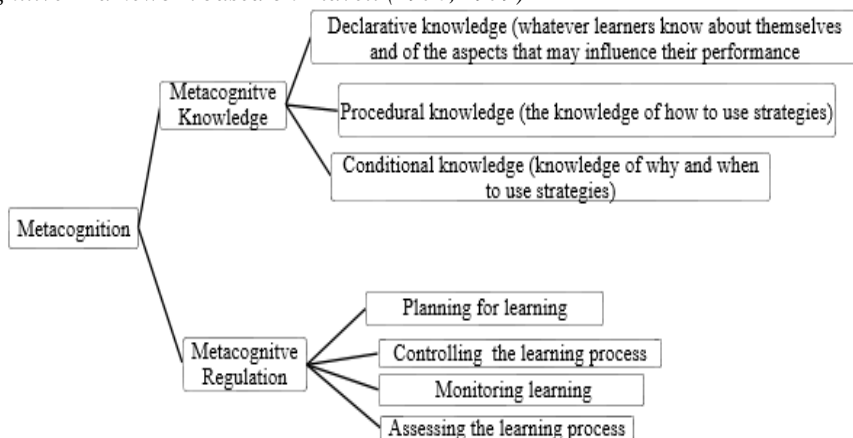


Because this study collects data through MALQ, a review of some studies investigating MLCS via only MALQ is presented below.

Rahimi and Katal (2010) used MALQ to assess the MLCS among Iranian EFL undergraduates with different majors. More than 60% of respondents were significantly informed about their metacognitive listening strategies. Though females significantly used more strategies under the directed attention sub-scale than male participants did, both sexes had a similar general awareness of metacognitive listening comprehension strategies. The findings also indicated that students with English majors were more conscious of planning & evaluation and problem-solving strategies. However, students with non-English majors used more mental translation strategies.

Sobhani (2015) investigated the link between gender and metacognitive listening comprehension strategies. His sample comprised 60 Iranian EFL students (30 females and 30 males) aged 19–30 years. Data was collected through a questionnaire used in Vandergrift's (1997) study, which was similar to MALQ in content. The difference between the metacognitive strategies for listening in terms of their gender was statistically non-significant. Similarly, Fayyaz and Kamal (2014) employed a modified version of MALQ among three hundred and fourteen (175 females and 139 males) ESL learners aged 18 to 30 enrolled in public and private language institutions in Pakistan. The overall difference between the means was non-significant, but female participants used significantly more metacognitive listening strategies in this study.

In a recent study on Malaysian twelfth graders, which consisted of randomly selected 23 male and 17 female students and the MALQ, Erizandy (2020) found that only 55% were aware, and 45% were unaware of their MLCS. The dominant strategies belong to planning & evaluation, and the lesser-known ones were under directed attention.

Alhaisoni (2017) and Altuwairesh (2016) investigated the MLCS of Saudi students in two different universities. Their participants ranked directed attention and problem-solving as more popular MLCS sub-scales than others, while they ranked person knowledge and mental translation as the least popular. However, the researchers did not

make a comparison between the two sexes. Apart from this, their studies were in EFL contexts only. The researchers could not find any research related to the use of MLCS by ESP students based on gender differences, either in Saudi Arabia or around the globe. Therefore, an attempt to fill in the gap of metacognitive listening comprehension strategies employed by Saudi ESP male and female learners during English listening comprehension activities was made in this study.

### Statement of the Problem

The scarcity of literature on the use of MLCS by male and female ESP learners motivated the researchers for this study. Classifying both genders on individual items and sub-scales will be highly important for ESP learners listening to the oral text via listening clips. The study purports to answer the following:

### Research Questions

1. What are Saudi female and male ESP students' least and most preferred metacognitive listening comprehension strategies (MLCS)?
2. What are the most and least employed strategy sub-scales by female and male ESP students?
3. What is the mean difference in metacognitive listening comprehension strategies (MLCS) sub-scales between female and male ESP students?
4. What is the mean difference in metacognitive listening comprehension strategies (MLCS) between female and male Saudi ESP students?

### Hypotheses

1. $H_1$: There is a significant difference in the overall use of MLCS between female and male Saudi ESP learners.
   $H_0$: There is no significant difference in the overall use of MLCS between female and male Saudi ESP learners.
2. $H_1$: There is a significant difference in using the MLCS sub-scales between female and male Saudi ESP students.
   $H_0$: There is no significant difference in using the MLCS sub-scales between female and male Saudi ESP students.

## Method

### Research Design

This study is quantitative in nature, and its framework is a descriptive research design. It used the survey method to collect data. A six-point Likert scale, MALQ, was administered through a convenience sampling technique to identify the metacognitive listening comprehension strategies of Saudi ESP students. Questionnaires, as Oxford (1996) stated, are among the most effective and comprehensive approaches to measuring the frequency of using language-learning strategies.

### Sample

The MALQ was distributed to all the available participants. They were second-semester ESP students of the Preparatory Year Deanship (PYD) at Prince Sattam bin Abdulaziz University (PSAU), Saudi Arabia. They were between 16 and 23 years old, native speakers of Arabic with a minimum of nine years of exposure to English before entering the program (Khoshaim, 2017). The ESP program has two tracks: English for

Medical Purposes (EMP) and English for Technical Purposes (ETP). EMP students study 'Career Paths' by Evans et al. (2012), and ETP students study 'Tech Talk' by Hollett and Sydes (2009) for 9 hours per week in a 15-week semester. The subjects were simultaneously studying Q: Skills for Success, Special Edition, Level 2 Listening and Speaking. In the first semester, they studied Q: Skills for Success, Special Edition, Level 2 Reading and Writing. They will be admitted to different specializations such as nursing, physiotherapy, dentistry, or other medical or technological fields if they secure the required grades and fulfil other university criteria for admission. The researchers received 320 responses (178 males and 142 females).

### Instrument/Measure

The research tool used in this study had two parts. In the first part, the respondents identified their gender, whereas the other part was the MALQ. This measure is a comprehensive tool comprising twenty-one statements grouped into five sub-scales representing five facets of cognitive aspects. The construct was developed and validated by Vandergrift et al. (2006) to assess the metacognitive knowledge of L2 learners. It is also deeply rooted in the theory of metacognition proposed by Flavell (1976, 1979) and research from the areas of listening comprehension and self-regulation. The description of the MALQ is given below.

a) Problem-solving strategies are six in number. Listeners use them to make inferences.
b) Listeners use five statements from the planning and evaluation sub-scale to prepare to listen and assess the outcome of their listening efforts.
c) Three items on the mental translation sub-scale inquire whether participants use translation from L2 to L1 while listening or not.
d) There are three items in the person knowledge group as well. They are perceptions of listeners regarding their self-efficacy in L2 learning and the difficulties caused by listening (Sparks & Ganschow, 2001).
e) The directed attention sub-scale includes four strategies, which are the techniques listeners use to stay focused and perform listening tasks attentively if they lose concentration (Rost, 2002).

After translating the questionnaire MALQ from English into Arabic, it was sent to three bilingual professors who were native speakers of Arabic and had the participants' socio-cultural affiliation. They checked the content validity of the content so that students understood all twenty-one statements better. The reliability coefficients of all statements and the sub-scales were also calculated using Cronbach's alpha. The five discrete groups of MLCS, with their reliability coefficients, are presented in Table 1.

**Table 1**
*Distribution of items on sub-scales*

| Sub-scale | Items | Cronbach's alpha |
|---|---|---|
| Directed attention (DA) | 2, 6, 12, and 16 | 0.72 |
| Mental translation (MT) | 4, 11, and 18 | 0.72 |
| Person knowledge (PK) | 3, 8, and 15 | 0.67 |
| Planning and evaluation (PE) | 1, 10, 14, 20, and 21 | 0.78 |
| Problem-solving (PS) | 5, 7, 9, 13, 17, and 19 | 0.80 |
| Overall | | 0.74 |

The MALQ, comprising twenty-one statements, was a closed-ended measure with a six-point Likert scale. Each statement had 6 (strongly agree), 5 (agree), 4 (partially agree), 3 (slightly disagree), 2 (disagree), and 1 (strongly disagree). There was no neutral point for them to avoid hedging. Their choices were their preferences for the MLCS they used while listening to the English text.

### Procedure

The researchers administered the questionnaire on Google Forms to the participants via WhatsApp in the thirteenth week of the semester. The data was collected using Google Forms and WhatsApp due to their convenience, cost-effectiveness, and ease of access to the participants. Better randomization and reducing sampling bias are also reasons for using WhatsApp (Ullrich, 2018). The participants were informed about the purpose of the research and its methodology in advance. They were also assured of the secrecy of their preferences and told that the results would not change their grades.

For analyzing data, the study adopted descriptive and inferential statistical methods. The participants' choices were coded as mentioned above. To compute frequency, percentage, means, standard deviations, independent samples t-tests, and mean differences, IBM SPSS-25 was used. The sub-scales from 21 statements were divided into five clusters (as per the MALQ). The means and standard deviations were interpreted according to the following criteria based on Khiewsod (2016): Lowest = 1.00-1.83; Low = 1.84-2.67; Lower moderate = 2.68-3.50; Higher moderate = 3.51-4.33; High = 4.34-5.16; Highest = 5.17-6.00

## Results

**RQ 1**: What are Saudi female and male ESP students' least and most preferred metacognitive listening comprehension strategies (MLCS)?

For answering the first research question, the mean scores and SDs on all individual strategies of females and males with their overall mean score on the MALQ are shown in Table 2. The sub-scales to which these items belong are also indicated.

**Table 2**
*Gender-wise Description of MLCS with their Mean Scores and SDs*

| | Sub-scale | Strategy | Male | | Female | |
|---|---|---|---|---|---|---|
| | | | Mean | SD | Mean | SD |
| 1. | PE | Before I start to listen, I have a plan in my head for how I am going to listen. | 3.31 | 1.48 | 3.04 | 1.68 |
| 2. | DA | I focus harder on the text when I have trouble understanding. | 3.75 | 1.60 | 3.74 | 1.54 |
| 3. | PK | I find that listening in ESP is more difficult than reading, speaking, or writing in ESP. | 3.42 | 1.57 | 3.35 | 1.62 |
| 4. | MT | I translate in my head as I listen. | 3.56 | 1.66 | 2.81 | 1.92 |
| 5. | PS | I use the words I understand to guess the meaning of the words I don't understand. | 3.74 | 1.79 | 4.12 | 1.37 |
| 6. | DA | When my mind wanders, I recover my concentration right away. | 3.79 | 1.42 | 3.61 | 1.73 |
| 7. | PS | As I listen, I compare what I understand with what I know about the topic. | 3.96 | 1.52 | 3.88 | 1.67 |

| 8. | PK | I feel that listening comprehension in ESP is a challenge for me. | 3.72 | 1.50 | 3.57 | 1.51 |
|---|---|---|---|---|---|---|
| 9. | PS | I use my experience and knowledge to help me understand. | 4.03 | 1.36 | 3.64 | 1.67 |
| 10. | PE | Before listening, I think of similar texts that I may have listened to. | 3.22 | 1.57 | 3.06 | 1.52 |
| 11. | MT | I translate keywords as I listen. | 3.44 | 1.59 | 3.20 | 1.84 |
| 12. | DA | I try to get back on track when I lose concentration. | 4.05 | 1.44 | 3.78 | 1.61 |
| 13. | PS | As I listen, I quickly adjust my interpretation if I realize that it is not correct. | 3.95 | 1.44 | 3.92 | 1.55 |
| 14. | PE | After listening, I think back to how I listened, and about what I might do differently next time. | 3.52 | 1.43 | 3.43 | 1.39 |
| 15. | PK | I don't feel nervous when I listen to ESP. | 3.69 | 1.53 | 3.75 | 1.64 |
| 16. | DA | When I have difficulty understanding what I hear, I give up and stop listening. | 3.85 | 1.42 | 3.55 | 1.54 |
| 17. | PS | I use the general idea of the text to help me guess the meaning of the words that I don't understand. | 3.98 | 1.58 | 4.16 | 1.53 |
| 18. | MT | I translate word by word, as I listen. | 3.11 | 1.67 | 3.00 | 1.58 |
| 19. | PS | When I guess the meaning of a word, I think back to everything else that I have heard, to see if my guess makes sense. | 3.36 | 1.61 | 3.54 | 1.84 |
| 20. | PE | As I listen, I periodically ask myself if I am satisfied with my level of comprehension. | 3.70 | 1.47 | 3.63 | 1.52 |
| 21. | PE | I have a goal in mind as I listen. | 3.96 | 1.66 | 3.85 | 1.54 |
| | | Total | 3.67 | 1.54 | 3.55 | 1.61 |

As shown in Table 2, the average of all means belongs to a higher moderate level for both genders (overall mean for males: M = 3.67, SD = 1.54; overall mean for females: M = 3.55, SD = 1.61), but many individual strategies are also related to lower moderate and higher moderate level use. No strategy comes under the low category, i.e., a mean score of less than 2.68. Out of 21 strategies, male ESP learners showed higher moderate use of 15 MLCS (12, 9, 17, 7, 21, 13, 16, 6, 2, 5, 8, 20, 15, 4, 14) and a lower moderate preference for 6 MLCS (11, 3, 19, 1, 10, 18). On the other hand, female ESP learners showed higher moderate level preference for 14 MLCS (17, 5, 13, 7, 21, 12, 15, 2, 9, 20, 6, 8, 16, 19) and lower moderate preference for 7 MLCS (14, 3, 11, 10, 1, 18, 4). Both male and female learners have commonly preferred (12, 9, 17, 7, 21, 13, 16, 6, 2, 5, 8, 20, 15) reflecting the higher moderate level and (11, 3, 1, 10, 18) belonging to the lower moderate level. Among common strategies (higher moderately preferred by both genders), two belong to personal knowledge, four to directed attention, two to planning and evaluation, and five to problem-solving.

Out of 21 individual strategies, Saudi male ESP learners placed strategy no. 12 first, which belongs to DA (M = 4.05, SD = 1.44), whereas the least used strategy for them was no. 18, which belongs to MT (M = 3.11, SD = 1.67). On the other hand, most Saudi female ESP learners' favorite strategy was no. 17 under PS (M = 4.16, SD = 1.53). Strategy no. 4, which belongs to MT, is the least employed by female ESP learners (M = 2.81, SD = 1.92).

**RQ 2**: What are the most and least employed strategy sub-scales by female and male ESP students?

For the second question, Table 3 indexes the mean scores of the five sub-scales with their SDs used by Saudi ESP male and female learners. Their overall mean scores and SDs are also displayed.

**Table 3**

*Gender-wise mean scores of five sub-scales with SDs (males = 178; females = 142)*

| Strategies | Gender | Mean | SD | Overall Mean | Overall SD |
|---|---|---|---|---|---|
| DA | Male | 3.86 | 1.09 | 3.78 | 1.13 |
|  | Female | 3.67 | 1.18 |  |  |
| PS | Male | 3.84 | 1.12 | 3.85 | 1.12 |
|  | Female | 3.88 | 1.12 |  |  |
| PK | Male | 3.61 | 1.21 |  |  |
|  | Female | 3.56 | 1.21 | 3.59 | 1.21 |
| PE | Male | 3.54 | 1.08 |  |  |
|  | Female | 3.40 | 1.15 | 3.48 | 1.11 |
| MT | Male | 3.37 | 1.26 | 3.21 | 1.38 |
|  | Female | 3.00 | 1.49 |  |  |

The mean score range of the five sub-scales of the MLCS for males was 3.37–3.86 and 3.00–3.88 for females on a scale of 1-6. Both Saudi female and male ESP learners indicated mental translation as their least used sub-scale of the MLCS (for male learners: M = 3.37, SD = 1.26 and for female learners: M = 3.00, SD = 1.49). On the other hand, directed attention was the most preferred (M = 3.86, SD = 1.09) for males, but for females, it was problem-solving (M = 3.88, SD = 1.12).

**RQ 3**: What is the mean difference in MLCS sub-scales between female and male Saudi ESP students?

An independent-samples t-test was run to investigate how female and male ESP students differ in using the sub-sections of the MALQ. In Table 4, the findings for each dependent variable are shown discretely.

**Table 4**

*Independent Samples t-test for Metacognitive Listening Comprehension Strategies Sub-scales*

| Sub-scales/DV | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | |
|---|---|---|---|---|---|---|---|---|
|  |  | F | Sig. | t | df | Sig. (2-tailed) | Mean Diff. | Std. Err. Diff. |
| PE | Equal variances assumed | .086 | .769 | 1.120 | 318 | .264 | .14016 | .12517 |
|  | Equal variances not assumed |  |  | 1.113 | 294.586 | .267 | .14016 | .12595 |
| DA | Equal variances assumed | 2.785 | .096 | 1.498 | 318 | .135 | .19054 | .12722 |
|  | Equal variances not assumed |  |  | 1.483 | 289.822 | .139 | .19054 | .12846 |
| PK | Equal variances assumed | .011 | .915 | .384 | 318 | .701 | .05228 | .13613 |
|  | Equal variances not assumed |  |  | .384 | 302.141 | .701 | .05228 | .13616 |
| MT | Equal variances assumed | 10.260 | .001 | 2.367 | 318 | .019 | .36422 | .15388 |
|  | Equal variances not assumed |  |  | 2.324 | 276.608 | .021 | .36422 | .15675 |
| PS | Equal variances assumed | .047 | .828 | -.321 | 318 | .748 | -.04038 | .12578 |
|  | Equal variances not assumed |  |  | -.321 | 301.837 | .749 | -.04038 | .12584 |
| Overall | Equal variances assumed | .374 | .541 | 1.205 | 318 | .229 | .11763 | .09765 |
|  | Equal variances not assumed |  |  | 1.192 | 288.376 | .234 | .11763 | .09870 |

Levene's test score of 0.769 for planning and evaluation is more than 0.05, indicating equal variances, so the t-value cannot reveal the statistically reliable difference between the means of female learners and male learners. The results, t = 1.12, df = 318, α = 0.05, p = 0.264≥0.05, show no statistically significant difference between female and male participants using the planning and evaluation sub-scale. Similarly, Levene's tests for directed attention, problem-solving, and person knowledge are 0.096, 0.828, and 0.915, which are greater than the probability level of α. The results for these sub-scales are t = 1.498, -.321, and 0.384, df = 318 for each sub-scale, p = 0.135, 0.748, and 0.701, respectively. Since, in each case, the p-value is greater than 0.05, the difference between the means of these sub-scales is statistically non-significant. Therefore, H1 will be rejected, and H0 will be retained. Furthermore, Levene's test for mental translation was p = 0.001≤0.05, which means equal variances were not assumed. Since the 't' value for this sub-scale was 2.324, df = 276.608, and p = 0.21≤0.05, the difference was statistically significant. Therefore, H0 will be rejected only for MT.

The findings in Table 4 also show the differences in the overall mean of MLCS between female and male ESP learners. This answers research question no. 4, "What is the overall mean difference in MLCS between female and male Saudi ESP students?" The t-test analysis of independent samples demonstrates the F value of 0.374 at a significance level of 0.541, which is more than 0.05 when equal variances are assumed. Since the findings show t = 1.205, p = 0.229 > 0.05, the difference between the overall mean scores of MLCS of Saudi female and male ESP learners is non-significant. Therefore, H1 will be rejected, and H0 will be retained.

## Discussion

The findings revealed that Saudi female and male ESP learners vary in their use of MLCS. Out of 21 strategies, Saudi male ESP learners indicated that their number one strategy was trying to get back on track when they had lost their concentration, and the worst one was translating word for word as they listened. However, Saudi female ESP learners mostly used the text's overall meaning to help them predict the incomprehensible vocabulary in the ESP listening audio. They did not translate much in their heads while listening.

Male ESP learners belong to a higher-moderate category on four sub-scales: PS, PK, PE, and DA, but they were only moderately aware of MT. Female ESP learners only employed three DA, PK, and PS sub-scales at a higher-moderate level, whereas they used MT and PE at a lower level. Overall, both genders used MT and PE sub-scales at a lower-moderate level and PK, PS, and DA at a higher-moderate level.

Although male and female ESP learners are different in using MLCS and the mean scores of male learners' preferences for the sub-scales were slightly higher than the mean scores of females' preferences (except for problem-solving), the findings did not show any statistically significant difference using all sub-scales (except for mental translation) between female and male ESP learners. In the case of the differences in the overall use of MLCS, the difference was statistically non-significant between male and female Saudi learners. It implies that male and female ESP students had a similar capacity to exploit their metacognitive abilities, and there was no distinction based on gender. These findings are in line with Sobhani (2015) and Rahimi and Katal (2010).

The preferences for the five strategies under the problem-solving sub-section demonstrate that participants used their prior knowledge and experience to comprehend ESP oral texts and terms and themes to guess the meaning of unknown or fresh terminologies. They also matched their understanding of the topic with their previous knowledge and pondered on their previous oral inputs to see whether it made sense or not. While doing so, they corrected their interpretation if they discovered it to be erroneous. Such a level of awareness of problem-solving strategies could result from having experience of reading academic texts for more than nine years as well as practicing English satisfactorily at school. Since most students tend to use background knowledge and unfamiliar words, instructors should help them by providing some familiar material based on the context. Vandergrift and Goh (2012) also pointed out that background information is crucial in listening since previous knowledge denotes the total conceptual knowledge and personal experiences that language learners have gained and are available for comprehension (Vandergrift & Goh, 2012). Many previous studies have discovered that problem-solving strategies are most popular among male and female students (Alhaisoni, 2017; Altuwairesh, 2016; Al-Alwan et al., 2013; Esmaeili et al., 2017; Thivyasreena, 2018).

The directed attention sub-scale is the most preferred cluster of strategies by male learners and the second most preferred by female learners. The participants did not stop trying to make meaning when they had difficulty understanding ESP oral texts. They concentrated on it more than before. Besides, when they had lost attention, they could come back to the track and regain their concentration when their minds digressed. Paying attention and concentrating while listening to texts play a pivotal role in successful comprehension. The findings also suggest that learners were active and attentive while listening to the audio. A possible reason for that could be receiving good strategy instructions on listening to English texts and comprehending them. Studies on metacognition identified that proficient listeners' preferred directed attention (Alhaisoni, 2017; Al-Alwan et al., 2013; Goh, 2000; Chen, 2010; Ratebi and Amirian, 2013).

Along with problem-solving and directed attention, male and female participants displayed significant use of person knowledge, which focused on students' perceptions of difficulty in listening. The responses in this subset suggested that participants were not nervous while listening to the ESP audios. Though they reported that ESP listening comprehension was less problematic, they said making meanings while listening to ESP text was more challenging than writing, reading, or speaking. These findings are in line with -Chin et al., (2017), Khiewsod (2016), and Chang (2013). The mean scores of person knowledge certify that listening (in ESP) is less challenging for them due to their fewer inclinations towards translating the ESP texts into Arabic to understand.

According to the results, the planning and evaluation sub-scale is the penultimate one in the list of five. Though males were a little bit better than females in planning and evaluation, the overall mean showed that males lacked the planning for listening beforehand with their inability to recall comparable texts they might have heard in the past. Female participants, however, set their objectives and self-questioned the level of their comprehension during listening to the ESP texts. After listening, a self-evaluation was also conducted to better prepare for the future. They learned outlining, organizing, and summarizing ideas taught explicitly in the class. Some other studies

(Alhaisoni, 2017; Al-Alwan et al., 2013; Esmaeili et al., 2017; Rahimi & Katal, 2010) reported planning and evaluation as significant, but their data included the whole population. Altuwairesh (2016), whose subjects were all females, said nothing about planning & evaluation as a sub-scale.

Both male and female ESP learners classified the mental translation sub-scale under 'lower-moderately used'. It was the least preferable sub-scale out of five groups for both male and female ESP learners. Employing the strategies from this sub-set signifies that participants translated (English into Arabic) neither word for word/keywords nor the oral texts in their heads as they listened to them. In this study, female learners used it less than male learners did, as there was a significant difference between them using this strategy and the whole cluster. Goh and Hu (2013) claimed that most language learners use the process of mental translation generally, but a lower mean is considered better for mental translation, as Vandergrift (2003) said a proficient listener would use translation strategies less or vice-versa.

The low mean scores of mental translation for both genders have also been shown earlier by Alhaisoni (2017) and Altuwairesh (2016). These results contrast with Khiewsod's (2016), where mental translation was the most commonly used sub-scale. This preference for MT strategies could be attributed to their studying listening and speaking at the same time, their involvement with competent English speakers, and their motivation for good grades to get admission to a good branch of studies. These listeners would have wanted to develop proficiency and become competent in English. They also had ample opportunities to sharpen their language skills with trained teachers and internationally recognized books.

### Conclusion

This study investigated the least and most preferable MLCS chosen by Saudi male and female ESP learners in the Preparatory Year Deanship (PYD) at Prince Sattam bin Abdulaziz University (PSAU), Saudi Arabia. The results indicated that most of the strategies composing the top part are from DA and PS. In other words, Saudi male and female ESP learners preferred PS and DA to PE, PK, and MT strategies. Looking closely at individual strategies, we find that learners were higher-moderately aware of strategies under the PS, DA, and PK sub-scales and lower-moderately aware of PE and MT strategies.

Based on mean scores, Saudi male learners were marginally better than female learners using DA, PE, and PK. However, this difference was not statistically significant. Furthermore, females were more aware of the PS sub-scale. The mean of MT was lower for female learners, which meant that they were more competent listeners than males.

The mean difference between Saudi female and male ESP learners using clusters of MLCS was so marginal that the difference found between Saudi male and female ESP learners using overall and group-wise MLCS was statistically non-significant except for MT. Saudi male and female ESP learners significantly differed in their use of the MT cluster.

Thus, it can be safely said that the participants in this study were somewhat capable of using MLCS, which further implied that they were pretty good listeners. Both genders showed no significant difference in using the sub-sets, which means they employed the strategies almost equally. They were more or less similar in using the MLCS and were not different in using them during listening to ESP texts.

### Recommendations and Limitations

In spite of the positive results of the study, Saudi ESP learners' preferences for the individual and group-wise MLCS were on the border of their awareness level. The mean difference between the MLCS was a little. Therefore, they require proper instructions about using all metacognitive strategies during ESP listening texts, particularly in planning and evaluation, as prior preparation before listening is essential. They should learn how to recall a similar audio text that they may have heard in the past and reflect on how to do things differently in the future.

Saudi ESP learners need to be trained in strategy no. 19 under PS to predict the meaning of new terms by recalling past knowledge and confirming their predictions. They should also be instructed in strategy no. 10 to prepare themselves mentally for the upcoming listening task and strategy no. 1 for the successful comparison of similar audio texts under PE. Females should be trained in No. 4 under MT so that they do not make their heads heavy with translation while they listen. It is also worth noticing that male learners need instructions on not using their mother tongue to translate keywords in their heads as they listen.

The MLCS instruction has proved helpful in tracking and stimulating metacognitive processes. After knowing students' practices and beliefs about listening, teachers and curriculum designers should help create better learning opportunities. Instructors should make them aware of the importance of metacognition and the MLCS, and curriculum designers should include more attention-drawing tasks to motivate learners (Zhang & Goh, 2006). To fulfill this purpose, they should train and guide students through metacognition, and this is possible by familiarizing them with the need for MLCsS.

This study was limited to a university and a moderate sample size. The participants were Arabs only. Therefore, generalizations should be made contextually and carefully. Further explorations are recommended in similar contexts to explore the choices of metacognitive listening comprehension strategies. Research correlating metacognitive instruction and strategies should also be done.

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# Personal Growth, Resilience and Burden of Care among Single Parents

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This study was intended to examine the relationship between personal growth, resilience, and burden of care among single parents and role of resilience as mediator between personal growth and burden of care. 100 single parents (M=37, F=63) took part in this study. For data compilation, the personal growth initiative scale-II, brief resilience scale, and burden scale of family caregivers were used. The results demonstrated that personal growth has a substantial positive correlation with resilience and negative correlation with burden of care. Furthermore, resilience significantly mediated the relationship between personal growth and burden of care. Findings evidenced that there are no significant gender differences. The present study will be useful in creating awareness among single parents to manage their stressors effectively .

*Keywords*: single parents, personal growth, resilience,

In the 20th Century many changes took place, and it was one of the major and drastic change to see the breakdown of traditional family system as the result, a single parent took care of the children rather than both. In the end, single parent families have increased considerably in numbers all over the world and Pakistan has been no exception. Despite having strong cultural values regarding family system, togetherness, relational understanding, collectivism and unity, single families are increasing in Pakistan (6%) (Waseem et al., 2020). Being a single parent and to fulfill all the requirements and necessities is a hard thing to do especially when you do not have enough resources to fulfill the responsibilities that are intended for two people (Azuka-Obieke, 2013). Whatever a person grows up to be in the society, it is based on the environment and learning in the household during childhood. However, because of uncertainty of life, sometimes this responsibility is left to a single parent e.g., divorce, denied parenthood, rape, separation or death of one spouse (Thwala,2011; Falana, Bada & Ayodele,2012).

Among all the other challenges, facing stigmatization, coping with loss and facing financial issues increases the burden on a single parent and effects them in all aspects of life including their emotional and physical wellbeing (Maurya, Parasar & Sharma,2015). Single-parent families are often stigmatized and negatively identified as broken and divergent and single parents are often known as those who cannot handle pressures as they are already burdened and thought to be the one who will only maintain a negative approach to life because of their loss as they are unable to make positive

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change in their own lives and make a comeback after their traumatic experience or by willingly choosing to be the single parent (Kjellstrand & Harper, 2012).

An ability to bring about a positive change in one's life after a traumatic experience is known as personal growth of an individual. This phenomenon can be expressed in three important domains including self-awareness, interpersonal relations, and philosophy of life (Tedeschi et al., 2018). As per the model presented by Schaefer and Moos (1992), a person's growth is affected by individual's resources including both internal and external such as personality factors, coping skills, interpersonal equations, and availability of support (emotional and financial). Although the advancement to being a parent is believed to be a joyous event or happening as that of any other life progression, but it comes with higher level of stress, responsibilities, and new challenges (Cowan & Cowan, 1992). It is no wonder that people report more personal growth after the birth of their child (Sawyer & Ayers, 2009; Taubman, 2012). For such transition parent gets general support by the partner who shares parenting duties, a significant personality missing in the case of single parent families and thus they face many challenges due to life's uncertain stressful situation and cannot maintain their balance for healthy functioning (Figueiredo et al.,2008).

It is extremely vital for single parents to maintain an equilibrium state of healthy functioning and manage stressful situations effectively even after crisis situations. This capability is known as Resilience (Smith et al.,2008; Manne et al.,2015). It is considered as a very important concept, having significant role in research and clinical interventions in the field of psychology (Block & Kremen, 1996; Luthar, Cicchetti, Becker, 2000; Masten,2001; Fredrickson,2001). As per Wagnild (2011), resilient people are those who are ambitious, who possess the desire to keep going regardless of the circumstances, they can identify their strengths and weaknesses and can efficiently attain and overcome adversity which is very difficult for a single parent to have considering the challenges they face on daily basis.

Research has shown that the current major social issue is single parents trying to be resilient enough to maintain a stable balance in their family life. The plight is that they struggle to overcome all these barriers of low-income, coping with mental and physical stress, health issues etc. (Archer-Banks, & Behar-Horenstein, 2012). Resilience studies exhibit that low socioeconomic factor and single parenting are the two major contributing factors having negative impacts on the families and children and single parenting increases the burden and challenges of one parent to fulfill the responsibilities of two parents (Tsoi & Bryant, 2015). A few studies have found that people who are more resilient exhibit a superior mental and physical performance, identify support from surroundings and cope effectively with any difficulty (Jonker & Greeff, 2009; O'Rourke et al., 2010). Resilience research have also predicted lower levels of caregiving burden i.e., more resilience will result in less burden of care (Cassidy et al., 2013; Scott, 2013).

Burden of care can be described as the aggregation of stress and challenges come across by caregivers during their process of care facility (Tsai, 2003). Burden of care is a challenging task for single parents because they are often the sole earners in their families or the only responsible one who can manage and balance all the stresses (emotional, physical, and financial) of caring for their families. It is expected that single

parent families mostly experience crucial social and economic difficulty than two-parent families (McQuillan 1990; Holden & Smock 1991; Lipman et al., 1997). Additionally, single parent families also must alleviate the stressors of their work and family life while living on the boundaries of poverty (Avison 1995; Lukemeyer et al,. 2000). The level of burden of care for a single parent with no sufficient coping abilities is higher as compared to two parent families with sufficient coping abilities.

Burden of care was first investigated in caregivers of chronic illness patients, and it was assumed to be a closely related construct to caregiving. When it comes to health issues in Pakistani society, mothers are the major carers. When a dreadful tragedy occurs, such as a child being diagnosed with a chronic illness, their responsibilities become threefold. They must not only commit a large portion of their time to addressing the sickness, but also manage other aspects of their family and/or job lives. There is a lot of expectation in such a situation, and there is sometimes help available, whether emotional, social, or financial, as well as support from family and friends. The concept of a joint family is particularly prevalent in Pakistan, and as a result, the presence of a joint family is common. A true or perceived support system is likely to play a significant part in the life of the caregiver (Israr & Ahmed., 2019).

According to Stress Process Model, caregiving is stressful as it includes five different domains i.e., demographic stressors, primary and secondary stressors, appraisal, and mediator/moderator (Pearlin et al., 1981). Primary stressors in this context are an individual's state or condition, leading to secondary stressors such as financial issues and family conflict etc. furthermore, appraisal is a caregiver's own subjective evaluation of their role (Sorensen et al., 2006). Some research shows that female caregivers are more affected by the burden of caregiving because they are less resilient as compared to their male counterparts (Cassidy, Giles, & McLaughlin, 2013, Scott, 2013, Zauszniewski et al., 2008). Furthermore, the approach to handle this burden is different in both males and females. Female caregivers may adapt emotion-focused coping strategy while male caregivers will rather choose problem-focused coping (Cherry et al., 2013).

Single parenting increases the challenges and problems for both the parent and their children, some people can cope with these challenges effectively, but some cannot lead to negative influences. Reports from earlier studies show that the gender of caregivers has been constantly reported as a major forecaster of burden of care (Chou et al., 2011; Hsiao, 2010; Zauszniewski et al., 2008), however this does not specify the relationship among these variables and how resilience plays a buffering role in personal growth and burden of care among single parents. Hence, our study aimed to assess the severity of burden of care and its association with personal growth and resilience among single parents. By recognizing the relationship of these variables, psychological health experts can improve efficient intervention programs to help these parents overcome their stressors.

Previous research established that raising a child is a difficult responsibility, and such responsibilities become more challenging when performed alone (mother or father alone). This leads to more issues, stressors, challenges, hardships, and extraordinary demands on both the single parent and their children (Bronnimann., 2008). Thus, resulting in feeling pressure to fulfill the responsibilities by handling every arising issue and managing the burdens.

With all the aforementioned issues in view, the current study aims to investigate certain challenges faced by single parents such as personal growth, resilience, and burden of care, as well as how these challenges are related to one another, whether resilience can act as a mediator between personal growth and burden of care, and whether there are any significant gender differences among single parents when dealing with these issues.

## Method

### Hypotheses

1. There is a negative relationship between personal growth, resilience, and burden of care among single parents.
2. Personal growth and resilience negatively predict burden of care among single parents.
3. Resilience mediates the relationship of personal growth and burden of care among single parents.
4. Male single parents are more resilient and able to handle burden of care as compared to female single parents.

### Operational Definitions

***Personal Growth***     Personal growth stands for conscious and effective participation in the growth process in areas that are important to the individual (Robitschek et al., 1998).

***Resilience***     Resilience has been defined as the ability to bounce back or recover from stress, as well as endurance to sickness, adaptation, and thriving (Smith, et al., 2008).

***Burden of Care***  Burden of care defines the aggregate of stress and challenges encountered by caregivers during their process of care provision (Graessel et al., 2014).

### Participants

Purposive sampling method was used to collect data as this provides particular characteristics of a population that are of interest, which will best enable to answer our research questions. Sample included 100 single parents (M=37, F=63) from different regions of Punjab, Pakistan (Attock, Rawalpindi, Islamabad, Wah & Taxila). Ages of the participants ranges from 18 years and above. The educational requirement was matric.

### Instruments

***Demographic Data Sheet*** It has been used to acquire information about respondent's various demographics, such as age, gender, marital status, number of children, education, socioeconomic status, and monthly income, among single parents who are either divorced, separated or widowed.

***Personal Growth Initiative Scale-II***     The improved PGIS-II (Robitschek et al., 2012) is a measure of complicated personal growth initiative processes. It is a 16-item scale with four subscales: readiness for change, plan-fulness, resource use, and intentional behavior. It's a six-point Likert scale, with 0 denoting strong disagreement, 1 denoting disagreement slightly, 2 denoting disagreement a little, 3 denoting agreement a little, 4 denoting agreement substantially, and 5 denoting agreements firmly. More responses on 0 indicate low personal progress, whereas more responses on 5 indicate high personal growth.

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***Resilience*** The Brief Resilience Scale (Smith et al.,2008) is a tool for assessing people's perceived ability to recover from stress. It's a six-item scale with items that are both positively and negatively written. Items 1,3, and 5 are positive in nature, whereas 2,4, and 6 are negative in nature. It's a 5-point Likert scale, with 1 denoting strongly disagree, 2 denoting disagree, 3 denoting neutral, 4 denoting agree, 5 denoting strongly agree for items 1, 3 and 5, and 1 denoting strongly agree, 2 denoting agree, 3 denoting neutral, 4 denoting disagree, 5 denoting strongly disagree for items 2,4 and 6. The BRS score ranges from 1 (poor resilience) to 5 (great resilience) (high resilience).

***Burden Scale for Family Caregivers*** The Burden Scale for Family Caregivers (Graessel et al., 2014) is a tool for assessing the burden of family caregivers. It is 28-item scale. It's a four-point Likert scale, with 0 indicating strong agreement, 1 indicating agreement, 2 indicating disagreement, and 3 indicating extreme disagreement. The items are graded on a scale of zero to three (strongly disagree to strongly agree). The point value varies from 0 to 84. Greater caregiver burden is indicated by higher scores.

### Procedure

First, respondents gave their informed consent. The information was gathered from 100 single parents in Punjab province, Pakistan. Single parents were given questionnaires on an individual basis, and they were instructed on how to complete them. It has been confirmed that all of the data acquired will be kept confidential.

### Data Analysis

Statistical Package for the Social Sciences (SPSS) was used for analysis of data. Pearson Product Moment Correlation (PPMC) is used to analyze the relationship between personal growth, resilience, and burden of caring among single parents. The independent sample t-test was employed to investigate gender differences. Mediation analysis was also utilized to analyze resilience as a mediator between personal growth and burden of care.

## Results

**Table 1**

*Alpha reliabilities, Mean and Standard Deviation of Personal growth, Resilience and Burden of Care (N=100)*

| Variables | *K* | *α* | *M* | *S. D* | Range | | *Skewness* | *Kurtosis* |
|---|---|---|---|---|---|---|---|---|
| | | | | | Potential | Actual | | |
| Personal Growth | 16 | .96 | 23.55 | 15.817 | 0-80 | 4-74 | 1.62 | 1.79 |
| Resilience | 06 | .75 | 12.92 | 2.95 | 1-30 | 6-22 | .133 | 1.67 |
| Burden of Care | 28 | .51 | 44.80 | 4.06 | 0-84 | 33-54 | -.43 | .15 |

Table 1 shows the values of mean, range, standard deviation, skewness, kurtosis and alpha reliabilities of subscales and scales. The value of skewness & kurtosis shows that data is normallydistributed and alpha reliabilities of scale confirm the adequate inter-item consistencies.

**Table 2**

*Correlation analysis of personal growth, resilience and burden of care among single parents (N=100)*

| Variables | 1 | 2 | 3 |
|---|---|---|---|
| 1.Personal Growth | - | .498** | -.261** |
| 2.Resilience | | - | .056 |
| 3. Burden of care | | | - |

p**<0.01

The results of the correlation analysis indicated that personal growth showed positive correlation with resilience signifying that people having high personal growth will be more resilient or will develop more adaptive ways that enabled them to experience less burden of care and more personal growth. However, personal growth showed a significantly negative relationship with burden of care representing that people are more likely to feel burden of care when their personal growth is less.

**Table 3**

*Simple Mediation of the effect of Resilience between Personal growth and Burden of care among single parents (N=100)*

| | | Group Identification | | |
|---|---|---|---|---|
| Predictors | | Model 2 | | |
| | | | | 95% *CI* |
| | Model 1 *B* | *B* | *LL* | *UL* |
| Constant | 46.38 | -7098 | 47.97 | 47.79 |
| Personal growth | -.0672 | .0251 | -.1169 | -.0175 |
| Resilience | | .3407 | .0396 | .6418 |
| Indirect effect- PGIS    BRS→BSFC → | | .0317 | .0025 | .0746 |
| $R^2$ | .0683 | .1144 | | |
| □$R^2$ | | .5686 | | |
| *F* | 7.1882 | 6.2647 | | |
| □*F* | | 0.9235 | | |

*Note.* CI = Confidence Interval; UL = Upper Limit; LL = Lower Limit; PGIS= Personal Growth; BRS= Resilience; BSFC= Burden of care

The results in Table 3 show that resilience mediates the relationship between personal growth and burden of care. Indirect effect was found to be significant. Hence, hypothesis that resilience mediates the relationship of personal growth and burden of care among single parents, is confirmed.
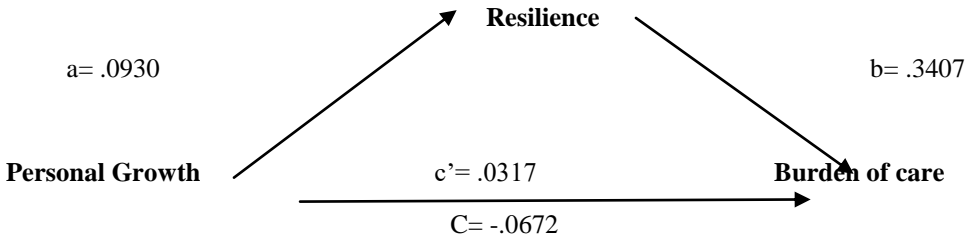
**Figure: Mediating Role of Resilience on personal growth and burden of care (*N=100*)**

*Table 4: T-test of Gender Based Comparison for personal growth, resilience and burden of care among single parents (N=100)*

| Variables | Male=37 | | Female=63 | | t | p | 95% CI | | Cohen's |
|---|---|---|---|---|---|---|---|---|---|
| | M | S. D | M | S. D | | | LB | UB | d |
| Personal growth | 23.57 | 13.03 | 23.54 | 17.34 | .008 | .99 | -6.50 | 6.56 | 0.00 |
| Resilience | 13.30 | 2.87 | 12.70 | 2.99 | .97 | .33 | -.61 | 1.81 | 0.20 |
| Burden of Care | 45.59 | 4.40 | 44.33 | 3.81 | 1.50 | .13 | -.39 | 2.92 | 0.30 |

Table 3 is showing the scores of the T-test's gender base comparison that whether the males are showing high scores, or females have high scores. As the result shows that there are no significant differences between males and females in personal growth, resilience, and burden of care among single parents. Male single parents, on the other hand, were shown to be more resilient (M=13.30) and capable of handling their caregiving responsibilities (M=45.59) than female single parents (Resilience M= 12.70, Burden of care= 44.33).

## Discussion

It is obvious that parenthood is the time of life when stress and challenges are very common, without even taking into consideration the number of parents in the households (Umberton and Gove., 1989). With the child caregiving burden, the other personal time demands also increases in parents because of their increased childcare and household management responsibilities (Berk & Berk., 1979).

Such normal pressure increases in single parents as in most of the single parent households every responsibility, be it earning or child rearing single handedly. Children of single parent families rarely have any other elder individual who appears to be the supplemental support for them in fulfilling the demands of their single parents (Wright., 1989).

Therefore, the current study was aimed to study these challenges faced by single parents. Thus, this study explored the relationship between personal growth, resilience, and burden of care among single parents. Results of the study revealed that there is a

significant positive relationship between personal growth and resilience following the previous research showing that families with strong ability of coherence adapt more easily after a crisis and achieve good level of reorganization ad growth (Greef & Fillis., 2009) while personal growth shows negative relationship with burden of care which is consistent with the earlier research findings showed that parents' caregiving experiences impacted them both positively and badly, with continued stress and personal growth (Young, Shakes Peer-Finch, Obst., 2019).

It was hypothesized that personal growth and resilience will negatively predict burden of care, which is consistent with a previous study that looked at the role of the personal growth initiative in predicting posttraumatic growth and posttraumatic stress and found that personal growth was found to be a negative predictor of posttraumatic stress (Shigemoto, Ashton & Robitschek., 2016).

Personal growth and resilience were found to be negative predictors of burden of care in a prior study that looked at the function of the PGIS initiative in predicting posttraumatic growth and posttraumatic stress and discovered that PGIS was a negative predictor of posttraumatic stress. The results indicated that resilience partially mediates the relationship among study variables (Faircloth.,2017).

It was hypothesized that there will be significant gender differences in single parent's resilience, personal growth and burden of care which was in accordance with the previous studies of single mothers stating that mothers tend to feel more pressure and more stress as compared to the fathers because for mother earning and managing household requirements becomes a difficult task to accomplish with them not being affected by these stressors. Women without men in their lives may face major challenges as single mothers, while their children are exposed to a variety of social difficulties, such as youngsters who run away from home, incarceration, a lack of education, and malnutrition (Sterrett, Jones, Kincaid., 2009). Being a mother and a father at the same time takes a lot of time and energy, and it can lead to some awkward circumstances. Single mothers have a higher level of stress than other parents. (Cheung, Suk-ching., 1997). But current study findings reported no significant gender differences in single parents' personal growth, resilience and burden of care which are in congruence with the previous findings of no significant differences when psychological well-being and adjustment of single parents was studied (Tarar et al., 2021). Similarly, when resilience was tested in a different arena by assessing post-traumatic stress among survivors of Bacha Khan University Charsadda, Pakistan, both male and female students reported being highly resilient, with no significant differences in their resilient capacities (Zaman & Munib., 2020).

### Conclusion

On the findings of the present study, it may be concluded that single parents having personal growth are more resilient. Low personal growth leads to issues in handling burden of care. Single parents with more burden of care will face difficulties managing their burden and being able to handle stress associated with caregiving. Due to a various issue, single parents are unable to properly care for their children and fulfill all their required responsibilities.

### Limitations and Suggestions

The current study included single parents who volunteered to participate; nevertheless, the random sample technique may yield different results. The results cannot be applied to the entire population of single parents due to time constraints and a small sample size. The future investigation should be undertaken with a big sample size to allow for generalization of the results and longitudinal study may yield more strong results.

Given the nature of the variables in this study, a longitudinal study might be more effective in examining the intensity of variables among single parents over time. Other variables, such as parental emotional difficulties and parental behavior with their children, could also be evaluated, as the current study was unable to incorporate all of these dimensions.

The present study did not take an equivalent balance of male and female single parents. To have more insight about gender differences in single parents, future researchers may take into account a potential and proper ratio of both males and females. In the present study, significant sociodemographic factors were not explored. It is recommended to investigate their impact on single parents.

### Implication of Present Study

In Pakistan's current circumstances, the rising prevalence of economic troubles, single parenting, and the weight of care have become a social threat. It is critical to raise awareness among single parents through seminars or workshops, and to educate them on how to manage their life pressures associated with caregiving responsibilities, as well as how to improve the lives of themselves and their children. In light of Pakistan, it is necessary to develop and implement effective strategies and practices that will assist them in growing and managing their challenges. As a result, the current study has a wide range of implications for single parents, practitioners, and researchers, allowing them to create appropriate conflict resolution treatments.

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# Determinants of Economic Condition of Rural-Urban Migrants at Place of Destination: The case of Nekemte City, Western Ethiopia

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The over whole purpose of the study was to investigate determinants of economic condition of rural-urban migrants in Nekemte city, Western Ethiopia. Specifically, the objectives delved on assessing post migration economic condition of migrants and determining factors of migrant attributes playing significant role. A longitudinal research design with qualitative and quantitative approaches of data collection and analysis were employed. Accordingly, relevant data was collected from randomly selected 184 individuals identified by the municipality as migrants through survey and key informant interview. The study uncovered that the variation of annual income, amount of saving, access to education and job satisfaction of migrants before and after migration was statistically significant at (p<0.001) indicating a general improvement in economic condition in post migration. Moreover, as per regression analysis, gender of migrant, level of education, job type, years of stay and access to loans were found to significantly determine income change in post migration. Conclusively, though many remains to be studied, it's evident from the finding that rural out migration could potentially improve the wellbeing of the migrants and thus, the national and regional governments need to devise policies and strategies that fosters rural-urban linkage for promoting greater economic opportunities .

*Keywords*: destination, determinants, economic condition, rural-urban

Migration is a worldwide phenomenon, with movements encompassing both internal and international across borders. The world has an estimated 244 million international migrants and 763 million internal migrants. In other words, migrants constitute more than 1 billion people, or one-seventh of the world's population (UN DESA, 2017). By 2050, urban areas in developing economies are projected to host between two to three billion new migrants, accounting for 95 per cent of global urban growth, with African cities taking the lion's percentage of the increase (Awumbila, 2014). Empirical reports of UNEP, (2016) reveal that, though urban areas constitute only less than 2 per cent of Earth's surface, they possess the lion's share (80 per cent) of economic output and between 60 and 80 per cent of energy consumption. About 97 per cent of global GDP is produced by industry and services employing about 65 per cent of global working population where most of these activities concentrate in urban areas to

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use the advantage of economies of scale and agglomeration economies (Satterthwaite et al., 2010).

Rural urban migration is specifically seen as exacerbating pressure on urban social services, environment and employment, and there is an underlying postulation that the phenomenon is leading to rising levels of urban poverty (Awumbila, 2014). Nevertheless, in spite of the existing adverse outlook of urban expansion in Africa, urban areas are becoming the leading destination and centre of human development as a whole (UN-Habitat, 2012). In its outlook towards urban areas face more challenges than the country as a whole in migration governance, the IOM (2015) suggested that, the issue deserve the forefront of urban planning and sustainable development. The authors further pointed out that UN Habitat reports continued to undermine migration issues. For instance, the World Cities Report of UN Habitat (2016) advocates a rights-based approach, which is potentially an argument against urban expansion. The report appears to address urban socio-economic problems thereby advocating "the right to the city" at the cost of "the right to food" of migrants (Aerni, 2014). However, rights could not be attained without putting institutions into effect (Juma, 2013). Furthermore, according to Aerni, (2016), the rationale for giving less emphasis to the challenges of internal migration is mainly, the western states are highly influenced by international migration than internal migration.

It was also reported that policies that aim to limit rural-urban migration consider migrants as cause for current urban problems with the assumption that rural migrants come to urban areas along with their poverty though the policies fall short of meeting the desired socio-economic objectives. For instance, review of population policies in emerging economies reveal that attempt to limit rural-urban migration remained not only unsuccessful but resulted in the enduring social inequalities (McGranahan et al., 2014). Tacoli (2006) further added that rural-urban migrants make use of the relocation to improve their socio-economic condition and there exists limited empirical evidence to conclude that rural-urban migration contributes to urban poverty. Reports of UNDP, (2006) also confirm that though international migration attracted much emphasis in the current migration issues, the role of internal migration is by far significant in the size of people involved and its contribution in poverty reduction through remittances.

According to IOM (2022), rural-urban migration plays significant role in reducing poverty level using the social and economic opportunities that urban areas provide which are absent in the countryside. It was also reported that upon proper management, migration can potentially generate prospects for improved living standard while serving as a weapon to overthrow poverty and materialize economic growth (UN DESA, 2019). The ever flourishing of large cities in Asia and sub-Saharan Africa obscured the demographic and socio-economic importance of smaller urban areas mainly due to distinctions in the criteria used to define urbanity from rurality. However, these smaller urban areas can potentially contribute for regional development and assist rural transformation through diversification of household livelihoods. The report of UCLG, (2016) revealed that smaller urban like areas are crucial in the emerging interest in territorial approaches to regional development. In addition, Ahimed et al., (2010) cited in Yousaf et al., (2022) stated that, the role of migration in exchanging new information and

its provision in the development of efficient skills in many arenas both in developed and developing economies should not be underestimated.

Studies show that mishandling of migrants can potentially cause social, economic and environmental challenges whereas good treatment helps to stimulate economic growth and contribute for sustainable development. For instance, Tacoli et al., (2016) argued that urban policies that underestimate migrants would result in economic and cultural segregation. On the other hand, urban policies that assume migrants as a threat to urban life would the victim of crime, discrimination and socio-economic divergence among its people (Ahmed, 2012). According to (Sassen, 2015), urban policy makers those encouraging migrants to become entrepreneurs would reap economic growth in the long run. These entrepreneurial migrants engage in various sectors of the available opportunities contributing for socio-economic growth of the city while generating additional fund as a tax payer which support further expansion of urban social services.

A study conducted by Qazi et al., (2021) in Pakhtun regions of Pakistan and Afghanistan, identified low level of urbanization and industrialization as the leading factors of underdeveloped economy which was linked to rural dominated setting, subsistence agriculture and social psychology of the area. Further, the scholars recommended expansion of planned urbanization as a mechanism of changing the social psychology of the agrarian population of Pakhtun-inhabited areas. Muhammad and Khadim (2020) argued that even though economic development is a common objective of almost all countries, the most important point is what controls economic development and how countries ensure the development of the factor so to have their economy grow sustainably.

Migration researchers argue that reaching on comprehensive migration theory is hardly possible owing to the dynamic nature and complexity of the issue (Castles & Miller 2009). On theoretical base, this study mainly adopted push-pull model introduced by (Lee, 1966) focusing on the stimulating roles of two factors (push and pull) prevailing in two different geographic areas (place of origin and destination) respectively. The rationale for using this theoretical approach is the fact that it can adequately addresses the consequences of migration at places of destination at micro scale (Abebe, 2014).

Projections for urban population Ethiopia, which is one of the least urbanized countries in the world, indicate that the proportion of people living in urban centres will double itself over the next four decades from 17% in 2010 to 38% in 2050 (UN DESA, 2011). Nekemte city, the capital of East Wollega zone is among the highest migrant receiving urban areas in Ethiopia. For instance, the study conducted by Ayenalem, (2009), on major causes of urban growth in Western Ethiopia reported rural-urban migration as the main reason and put Nekemte city among the fastest growing urban areas with well over the national average growth rate for major urban (4 percent). There is lack of sound knowledge and understanding of determinants of economic condition of rural-urban migrants in the study area. Abebe (2014) pointed out that, in Ethiopia, most of the existing literatures revolve around international migration while only limited researches focused on internal migrations most which are indeed conducted by European researchers. It was also

reported that local level of migration studies are absent from many scholars enrichments (Mitara & Murayama, 2008). On top of that, there is apparently negligible research work conducted at empirical level in the study area which prompted the researcher to conduct a study on the issue with the objectives of assessing determinants of economic condition of rural-urban migrants at place of destination.

## Method

**Description of the Study Area:** Nekemte is a zonal capital of East Wollega zone found in Oromia regional state, western Ethiopia. Geographically, it's located at $9^0 3'0''$N latitude and $36^0 29'0''$E longitude which is found at a distance of 330 kilometers to the west of the capital city of the country (Addis Ababa).

Projection of 2007 census data (CSA, 2007) using the then average growth rate for urban areas (4%) showed that the city has a total population of 116,762 where about 55, 533 and 61,229 were males and females respectively in 2020. Tom (2018 p. 9) reported that the share of the life time migrants from the population of Nekemte city accounts for about 73.82 per cent. Official sources also indicated the existence of 4,100 recent migrants in the current study zones of the city. The major economic activities practiced in the city are trade, hotels and restaurants. Urban agriculture like dairy, beef and poultry farming are becoming important sources of income and employment for considerable fraction of the people in the city. Furthermore, constructions, wood and metal works are areas of temporary employment opportunities (*Nekemte* city Administration office, 2020).

Fig. 2.1 Map of the study area
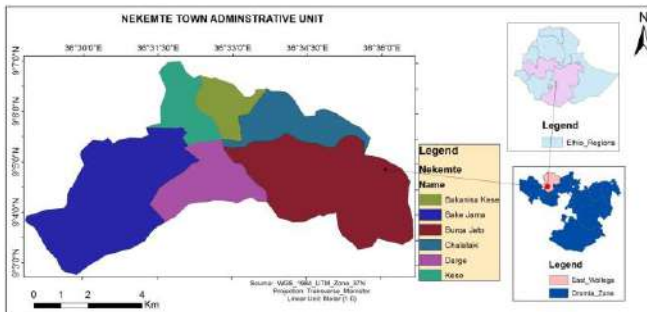


Source: GIS data, 2020

Longitudinal research design with quantitative and qualitative approaches of data collection and analysis was employed in the study. In the process of obtaining a manageable size, from the existing seven sub cities, *Chalalaki* subcity was purposively selected grounding on relative concentration of migrants in the city. According to official source, the sub city is further divided in to twelve zones (Nekemte City Administration, 2020). Accordingly, the researcher purposively selected the last four zones (zone 09, zone 10, zone11 and zone 12) grounding on relative proportion of migrants. A sample

size of 184 migrants was statistically determined and randomly selected proportionally from 4,100 migrants in the study area based on the size of migrants in each zone.

**Data Collection**: Relevant data for the study was gathered through questionnaire from migrants. The questionnaire was mainly sought to elicit information of migrants' demographic characteristics, economic condition before and after migration. Moreover, interview was also conducted with purposively selected community representatives and officials from the urban administration to enrich the survey data.

**Data Analysis:** Analysis of quantifiable data was conducted through descriptive and inferential statistics using SPSS version 20. T-test was used to test the significance of income change before and in post migration while regression statistics was used to determine the major predictors of the change. In addition, qualitative findings were analyzed along with survey results through triangulation.

**Model specification**

The study attempted to determine as to what explanatory variables are more responsible for change of income in post migration using logistic regression model. The independent variables tested include gender of migrants (MIG_GEND), marital status (MIG_MAR_ST), educational status (MIG_ED_ST), years of stay (MIG_YEA_ST), types of job (MIG_JO_TYP) and migrant place of origin (MIG_OR) whereas migrant income condition (MIG_INC) was dependent variable.

Thus, the equation is written as

$$\text{Logit} (P_i) = \log \left(\frac{P_i}{1-P_i}\right) \beta = \beta_o + \beta_1 X_{1i} + \beta_2 X2i + \ldots\ldots + \beta_k X_{ki} \quad \ldots\ldots\ldots\ldots\ldots\ldots \quad (1)$$

Making some arrangements of equation the above model or relation can be written as;

$$P_i/1\text{-}p_i = (e^{\lambda i}/ (1+ e^{\lambda i)})/ 1/ (1+e^{\lambda i}) = e^{\lambda i} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (2)$$

Where, $P_i = E (y_i =1/x_i) = e^{\lambda i}/ (1+ e^{\lambda i)})$ (contributed to income change)

$1\text{-}p_i = 1/ (1+e^{\lambda i})$ (did not contributed to income change)

## Results

**Table 1**
*t-tests of the socio-economic condition before and after migration*

| Variables | Before migration (mean) | After migration (mean) | T-test | Sig. |
|---|---|---|---|---|
| Annual Income (in ETB) | 2,206.52 | 5,320.65 | 6.10 | p<0.001 |
| Amount of saving (in ETB) | 339.6 (19.6%) | 3,532.6(92.4%) | 8.65 | p<0.001 |
| Educational level | 2.24 | 2.92 | 4.31 | P<0.001 |
| Job satisfaction | 1.64 | 3.84 | | |
| Social security | 4.32 | 1.67 | 17.85 | p<0.001 |
| | | | 37.13 | p<0.001 |

Source: Survey result, 2020

Rural-urban migration has a potential to positively affect migrants' economic conditions. It's apparent from (table 1) that the mean variation of migrants' annual income and amount of saving before and after migration was statistically significant at p<0.001 indicating a general improvement after migration. In a nutshell, the mean annual income has shown an increment from ETB 2,206.52 before migration to ETB 5,320.65 after migration indicating an encouraging trend. Moreover, migrants were used to save only ETB 339.6 per capita (with only 19.6% having saving account) before migration which has shown an impressive increment to about ETB 3,532.6 per capita (more than ten times) with 92.4% having saving account after migration.

In addition, the mean variation of the educational status and job satisfaction before and after migration was statistically significant at p<0.001 showing an encouraging increment after migration. The result of interviews uncovered that most of the migrants were upgrading their educational status using the available educational opportunities operating in various programs. Most of laborers and merchants follow their schooling in evening programs and others in weekend and distance extensions while accomplishing their livelihood activities and educations side by side. However, social security condition of the migrants was also tested to have statistically significant difference (p<0.001) indicating a discouraging condition in post migration. In line with this, migrants, particularly working as daily laborers in the city stated that they feel socially insecure as they are working without any insurance contracts and absence of formally written work agreements.

**Table 2**

*Regression Analysis of the Major Predictors of Income Change Model summary*

| Model | R | R square | Adjusted R square | Std. Error of the estimate |
|---|---|---|---|---|
| 1 | .969 | .939 | .936 | 884.56222 |

Coefficients <sup>a</sup>

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -6992.990 | 1261.578 | | -5.543 | .000 |
| | Gender of migrant | -4901.904 | 477.316 | -.705 | 10.270 | .000 |
| | Marital Status | -97.623 | 156.484 | -.020 | -.624 | .534 |
| | Educational status | 356.746 | 154.884 | .106 | 2.303 | .022 |
| | Years of stay | 164.537 | 54.011 | .146 | 3.046 | .003 |
| | Job type | 1641.402 | 133.256 | .503 | 12.318 | .000 |
| | Place of origin | -51.732 | 174.823 | -.007 | -.296 | .768 |
| | Own house | -870.854 | 455.088 | -.117 | -1.914 | .057 |
| | Access to loans | 2843.127 | 451.299 | .167 | 6.300 | .000 |
| a. Dependent Variable: Migrant Income After migration | | | | | | |

Source: Survey result, 2020

Progress of income in post migration Table 2 was regressed on predicating variables (migrant gender, migrant job type, access to loans, years of stay and educational status)

indicated (F=296.45, p<0.001 with $R^2$ =93.9) suggesting that 93.9% of the variation is predicted by the listed factors in the model. In a nutshell, gender of migrant (β=-.705, t=-10.270, p<.001), job type of migrant (β=.503, t=12.318, p<.001) and migrant access to loans (β=.167, t=6.300 and p<.001) were observed as the major predicting variables of income of migrants. In addition, migrant educational status (β=.106, t=2.303, p=.022) and years of stay (β=.146, t=3.046, p=.003) were found to have statistically significant contribution in post income change of the migrants. Conversely, migrant marital status (β=-.020, t=-.624 and p=.534), place of origin (β=-.007, t=-.296 and p=.768) and migrant own house (β=-.117, t=-.1.914 and p=.057) were tested and regressed to have statistically insignificant contribution to income difference between pre and post migration.

## Discussions

The study disclosed a statistically significant and an encouraging trend of migrants' improvement in their income and amount of saving, educational status and job satisfaction after migration to the city. In other words, migrants were found to meet their expectation of higher wages in urban areas through real life experience in post migration. These provide a strong evidence of the positive impact of rural-urban migration on migrants' socio-economic conditions in the study area. Consistent with this finding, a study by Sethurman (1981) shows that, almost two-thirds of the male and female migrants reported to be better off in their monthly income after migration than before. Furthermore, Using a multicollinearity analysis, (Kazi, 2018) found statistically significant improvement in economic conditions, increased savings, improved poverty level and education of children in post migration at place of destination. In addition, Uyilowohma et al., (2021), by using meta-analysis observed significant positive association between delivery of credit facilities and the improvement in child nourishment and increased birth control practice.

The finding of Henderson et al., (2017) also found that recurrent drought in Africa caused increment of urban expansion which eventually resulted in improvement of migrant income owing to the relative concentration of manufacturing and other service sector opportunities in urban areas. Further, Irhoumah et al. (2020), using structural equation modelling, found that women's accessibility to microfinance has contributed positively to consumption expenditure and most importantly, reduced poverty among households in Egypt.

However, when it comes to social security, the migrants were surveyed to be ill-treated by the urban administrators as they believe that additional immigrants exacerbate pressure on the limited urban social services. Migrants claim that they live within insecurity from the government as their slums are being demolished frequently evicting hundreds of households to become homeless. In relation to this finding, Umar (2018) reported that though post migration welfare condition of migrants has shown relative improvement, the social protection of migrants was found to be low indicated by absence of insurance contracts and formal work agreements with their employers. Similarly, according to the report of UN Habitat (2012), the existing low capacity of cities to accommodate the increasing immigrants has resulted in adverse policy prescription of governments and city authorities on migration to urban areas.

On the other hand, migrant attributes particularly gender of migrant, level of education, job type, years of stay and access to loans played significant role in income change in post migration. Consistent with this finding, Umar (2018), reported that the personal background of migrants, such as educational status, work experience, and monthly income have a significant positive effect on the quality of their employment. Similarly, studies that focused on controlling factors of migrants welfare at destination areas found that migrants' extent of success is a function of human and social capital (Shah, 2000), duration of migration period, the standard of working situations and prevalence of social networks (Akay, 2012).

### Conclusion

The overall of purpose of the paper focused on assessing determinants of economic condition of rural-urban migrants at place of destination. It was investigated that the economic condition (income and amount of saving), educational opportunities and job satisfaction of the migrants has shown an encouraging trend and a general improvement in post migration. However, legal problems of slum settlements and violence owing to low police service around informal settlements were found to increase migrants' dissatisfaction to live in the area. On the other hand, gender of migrant, job type, years of stay, access to loans, and educational status were found to positively determine income change of migrants. Generally, grounding on these findings, the author concludes that if managed intelligently and humanely, rural urban migration could be an opportunity rather than a challenge for sustainable development of cities.

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# Chemistry Lesson Plan Design and Teaching: A Case Study of Senior Secondary Schools in the Urban Regions of the Gambia

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This study aimed to understand chemistry lesson plan design and teaching at secondary schools with 14 teachers and 282 students, grade 11, through Randomized Post-test Control Group Design, placed in each experimental and control group. The experimental group was taught using multifunctional approaches, social constructivism, and laboratory experimentations. The control group was taught using traditional methods and laboratory experimentations, focusing on concepts of acids, bases, and salts. Indicators such as lesson topic, objectives, activities, evaluations, and conclusions were thematically reviewed, while teaching categories such as lesson organisation, activities teaching, pedagogical approaches, collaborative learning, teacher-student interaction, instructional resources, and students' academic performance were quantitatively analysed. Descriptive statistics were used to obtain frequency per cent (%), weighted mean, and standard deviation. The finding shows that teachers were knowledgeable about designing a chemistry lesson even though they followed the same trajectory and were inadequately prepared. In addition, only pedagogical approaches and instructional resources were moderately utilised among the teaching categories. Further, students in the experimental group performed better academically, as measured by their mean difference (12.121), significant (t = 6.142, p =.000), which may be attributed to paradigm-shifting from teacher-centred to the students-centred, instructional resources, students' ability, and motivation. Therefore, the current lesson plan design as a case study in the chemistry classroom implies that effective lesson plans and teaching can lead to better learning of core competencies in the Gambian context if they were to be monitored and improved extensively. However, a further study may be needed by comparing the difference between pre-test and post-test scores, as this will indicate a better measure .

*Keywords*: lesson plan design, chemistry teaching and learning, secondary school

In chemistry classrooms, students are limited to developing core transferable competencies such as critical thinking (Harvey, 2016), comprehension, and skills (Chun & Jordan, 2010). Lapcharoen (2021) attributes it to teachers' inadequate understanding of the importance of core competencies and pedagogy (Blonder & Mamlok-Naama, 2019),

including high-level learning requirements (Joof, 2014). Further, Burama (2019) also connected it to the nature of the chemistry curriculum structure in The Gambia, which he described as academic with little inclusion of inclusive education. This gap may be filled if nations redesign both skills-based, including critical thinking (Qing et al., 2010) and academic curricula, to orient teachers from academic to creative approaches (Marchak et al., 2021). However, need assessment is imperative to guide the alignment (World Bank [WB], 2017), inlcuding the relationship between the current situation and competencies.

Although curriculum alignment may theoretically inform the need for core competencies, the appropriate practice can be informed through lesson plan study and Teaching (Margarita & Rodriguez, 2007; Roxana, 2018). According to Bayram-Jacobs et al., (2019), lesson plans activate pedagogical methods to influence chemistry teaching and learning and encourage students to think critically through engagement and participation. In this regard, the exploratory study is proposed to assess current practices in chemistry education, particularly on acids, bases, and salts, which are challenging for students to apply critical thinking in The Gambia (Chief Examiner's Report [ CER], 2017–2019).

Roxana (2018) explained lesson plan design as an instructional tool to enhance academic and high order thinking skills (Chun & Jordan, 2010). Therefore, adequate planning can enhance learning core competence through preparation, encouragement, and engagement. However, without an effective lesson plan, students' critical application of acids, bases, and salts learning could be compromised (Harvey, 2016) because the main indicators such as lesson topic, objectives, activities, evaluation, and conclusion would be a mere description but not to achieve the desire goals (Roxana, 2018). Today, however, even those students with the highest grade of success in chemistry could not critically analyse chemical concepts because lesson plans and teaching approaches could not prepare them to think critically (Widiastari & Redhana, 2021). One of the factors attributed to this anomaly in chemistry education is pedagogical methods (Bayram-Jacobs et al., 2019), learning resources (Joof, 2014) and teacher factors (Popova et al., 2016); one of those teaching categories that should be preserved and enhanced.

Among the teaching categories (lesson organisation, activity learning, pedagogical approaches, collaborative learning, teacher-student interaction, and instructional resources), can influence learning goals (Braskamp & Ory, 1994; Eilks et al., 2013). Teaching categories perhaps can describe and preserve the attainment of lesson objectives, purpose, and students' expectations. Particularly lesson organisation, where many opportunities can be provided, such as the modalities of teaching the content, students' collaboration, and engagement (Popova et al., 2016). It also minimises teacher-centred teaching methods (Byers & Eilks, 2009) and encourages student-centred methods (Joof, 2014). However, the teacher should be prepared to make this happen ((Bombardelli et al., 2021) by introducing more inclusive lesson collaboration and effective pedagogy (Simon-Adu & Karen, 2022). Knowledge of teaching is not as simple as it may be thought (Itbar et al.,2020), and it has been found challenging for teachers to relatively practice or engage students in task-based learning (Joof, 2014).

**CHEMISTRY LESSON PLAN DESIGN**

Collaborative learning is one of the teaching categories Eilks et al., (2013) described as an important opportunity for students because it encourages them to improve academically and critically as they form groups to solve problems (Johnson & Johnson, 2005). Notably, in the social constructivism approach, collaborative work is a prerequisite to supporting students learning (Akyol & Fer, 2010) because they can use the opportunity to explore skills and potential (Liu & Chan, 2010). So, a teacher should be obliged to engage students with different challenging tasks (lesson activities) for them to construct and apply knowledge cognitively. Qing et al. (2010) therefore suggests lesson activities (Task-based) are guiding principle for both teachers and students rather than merely presenting content knowledge with limited opportunities.

In addition, other studies acknowledged the importance of teaching and learning resources for better accomplishment of lesson activities during concept discourse (Igharo et al., 2011). For example, content teaching can be compromised without appropriate resources, including technology, because gap can be created between concept discourse and conceptual understanding (Teemu et al., 2020). However, Shulman (1987) argued that technology could be used to support, but pedagogy must be adequate before quality learning. The pedagogical approach drives technology integration itself, and its appropriateness can be used to measure teaching and learning.

Another study recognises cordiality of teacher-student interaction to bring about higher-level thinking skills, confidence, and self-esteem among students (Alvarez-Bell et al., 2017). In chemistry teaching and learning, teacher-student interaction can bring about student encouragement and active participation, confirming that the teacher has a multifunctional role apart from teaching. While implementing those roles, the teaching can move from teacher-centred to student-centred (Byers & Eilkes, 2009). Therefore, based on these findings on lesson plan design and chemistry teaching and learning, teachers need continuous professional development (Satter & Awan, 2019) or additional intervention to help them improve or address their immediate challenges (Hinduja et al., 2020). This is because most teachers pass through teacher training college, but do they understand the importance of teaching core competence (Lapcharoen, 2021). Even if they do, their experience or knowledge about teaching has no significant effect on their performance (Itbar et al., 2020). Ali and Hamza (2018) state that it can improve teacher performance and student learning, including achieving an institutional, educational goal. Therefore, how it happens in The Gambia, a case study is designed to assess teachers' lesson plan design and teaching and learning of chemistry concepts. In this background. The following research objectives guided the study:
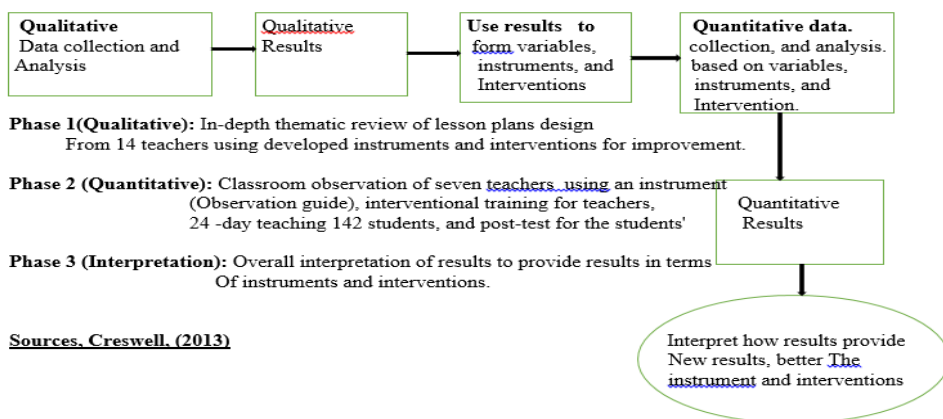
1. To assess the level of chemistry teachers' ability to design lesson plans
2. Determine the extent of teachers' use of various teaching categories that support learning.
3. To identify the effect of chemistry lesson plan design on students' academic performance.

## Method

### Research design

The study employed an exploratory sequential mixed method design to understand the causes of chemistry teaching and learning disorder at secondary schools (SS), particularly students' core competencies in acids, bases, and salts concepts (Creswell, 2009). The complimenting approach was a post-test control group design on a case study to assess chemistry lesson plan preparation to support chemistry teaching and learning (Frey, 2018). Social constructivism theory and practice guided the content discussion (see Akyol & Fer, 2010; Liu & Chan 2010). Moreover, the effect of chemistry lesson plan design on students' academic performance was identified.

**Schematic diagram of Exploratory Sequential mixed Design.**



**Phase 1(Qualitative):** In-depth thematic review of lesson plans design From 14 teachers using developed instruments and interventions for improvement.

**Phase 2 (Quantitative):** Classroom observation of seven teachers using an instrument (Observation guide), interventional training for teachers, 24 -day teaching 142 students, and post-test for the students'

**Phase 3 (Interpretation):** Overall interpretation of results to provide results in terms Of instruments and interventions.

Sources, Creswell, (2013)

This approach relies as much as possible on the teachers' lesson plan design and their classroom practice. Instead of focusing on methods, we emphasise the research problems ( lesson plan as a possible disorder of chemistry learning at secondary schools) and use all three approaches, namely lesson plan assessment, classroom observations, intervention, and student assessment, to understand the problems (Creswell, 2013).

### Sampling and Sampling Characteristics.

Two hundred and eighty-two (282) students were systematic randomly sampled from 568 students in 14 SS, targeting grade 11 in urban regions using a class register at regular intervals. According to the geographical distribution of the country, there are six administrative regions. Regions 1 and 2 are the urban centres, while Regions 3 to 6 are rural centres. Fourteen schools in regions 1 and 2 were purposively selected from 122 SS (Education Statistics [ES], 2018-2019) because of the chemistry students' population, resources, and proximity to the research (Lisa, n.d.). In addition, in each 14 SS, a chemistry teacher was selected by their length in the service (10 to 15 years) to understand teaching and learning better.

Two hundred and eighty-two (282) students sample were split into two by placing them into the experimental (141) and the control groups (141). According to their

academic results from schools, which determine them to be equivalent groups. A similar approach was used on 14 teachers in experimental (7) and control groups (7). This selection process was consistent with the suggestion reported in Muralidharan's (2015) study. *All participants signed a consent form, agreeing to participate voluntarily*.

## Data collection and procedures
### Procedures
a) Knowledgeable personnel (Ministry of Education, Gambia College-School of Education and the University of The Gambia -School of Education) were invited to review the two instruments:- Lesson Observation Guide (LOG) and Academic Performance Items (API), developed for their appropriateness
b) Personnel, including researchers, reviewed and validated the instruments by checking language clarity, comprehensiveness, and appropriateness. As a result, ambiguous or repeated questions were removed from the specifics covering general education, personality, attitude, and school management. In addition, API, which was 20 theory questions initially, was moderated to 17.
c) Both instruments (LOG & API) were piloted immediately after validation on four teachers and 40 students, respectively. API was piloted twice, during which two items were repeatedly not attempted by students, then removed, thus reducing the instrument from 17 to 15. The internal consistency was found (0.84) using Inter-Rater (inter-observer reliability) for LOG. In contrast, the reliability coefficient (Statistical Package for Social Science-SPSS v. 21) for API was 0.78 Cronbach's Alpha (Hinton et al., 2004).
d) Post-tests for both groups were conducted using 15 API within 2 hours to control internal and external threats that may emerge during the intervention (Frey, 2018).

## Data Collection
a) ***Lesson Plan Design***: All 14 teachers were allowed to plan a lesson on acids, bases, or salt concepts and present it to the observers, including researchers, for comments and improvements. The primary indicators were reviewed thematically for consistency and appropriateness (Roxana, 2018).
b) ***Teaching Categories:*** At this phase, only seven teachers (experimental group) were allowed to use the improved lesson plans to teach and observed in the actual classroom within 70 minutes, while the other seven (7) teachers (control group) were only supported improving their lesson plans and to use it to teach students in control groups. A lesson observation guide (LOG), including scoring guidelines, was a free and adapted tool (Braskamp & Ory, 1994) used to collect data from each teaching category. Pointers were developed for each scoring guideline to evaluate teachers' practice and were interpreted on a Liker scale in descending order (**4 to 1**). The scoring guidelines include "*prominent evidence for the entire duration of the class session,*" **scale 4**, "*evidence for about 2/3 of the class session,*" **scale 3**, "*evidence for less than 1/3 of the duration or limited evidence during the entire class session,*" **scale 2**, and "*no evidence during the entire class session.*" **scale 1**. These were critically scored and recorded independently by observers during teaching, later discussed, collated, and analysed. Based on our study focus and scope, Likert scales **4** and **3** were acceptable practices. Nevertheless, scales **2** and **1** were regarded as inadequate.

c) Therefore*, **the researchers used quantitative and qualitative results found*** during lesson observation, including lesson plan design, to support teachers in the experimental group. The effect was assessed on students' academic performance**.** It took about two weeks to train teachers to design interactive lesson plans, improvisation, and pedagogical approaches, including the social constructivism paradigm and laboratory experimentation of chemical phenomena. Under this protocol, activity-based training (Joof, 2014) and collaborative learning (Eilks et al., 2013; Liu & Chan, 2010; Qing et al., 2010) were emphasised to develop hypotheses and promote their observation, inference freely, and conclusion skills within the following courses: 1) An introduction to the concepts of acids, bases, and salts, which allows teachers to review prior knowledge and develop hypotheses. In addition, 2) qualitative classification of substances using a pH indicator extracted from red cabbage and other conventional indicators such as phenolphthalein, methyl orange, and bromothymol, 3) quantitative measurement for acids and bases, 4) measurement and calculation of numerical values of the pH, which took them to construct a pH scale with both numerical and colour representations for each sample, 5) Identification of salts by exploring and distinguishing acids, bases, and salts while conducting solubility properties; and 6) antiacid titration using distilled water, bromothymol blue indicator, and 1M HCL. However, other sets of teachers (control groups) were supported to develop an interactive lesson plan design and hands-on activities using physical experimentation.

d) **Follow-up teaching at schools commenced** where all 14 teachers (Experimental and Control groups) were provided with teaching materials, including worksheets, reagents, and apparatus, for further teaching students (experimental and control) for about 24 days. This was -

**e)** followed by post-test using 15 open-ended questions (API) to compare the performance of the two groups of students.

### Data analysis
Lesson plans were analysed thematically, considering the indicators' strengths and areas of improvement (Teemu et al., 2020). In addition, teaching categories (LOG) and post-test results (API) were analysed quantitatively using SPSS v.21 for frequency per cent (%), weighted Means and Standard Deviation, respectively.

The frequency per cent (%) generated from teaching categories was further interpreted by researchers. The frequency per cent (%) score for scales **4 & 3** fell between 60 to 100%, interpreted as "strong demonstration". Between 50 to 59% were interpreted as "moderate demonstration," and 0 to 49% as "weak demonstration." In contrast, on scales **2 & 1** with any frequency per cent (%), we interpreted them as "weak demonstrations" because they were regarded as inadequate practice, by our interpretation. These parameters used to determine teachers' practice where the same measures teachers assess students' tests or exams in the country. Whereas for API, the normality test was first determined on students' test scores and found no statistically significant but approximately normally distributed (Shapiro-Wilk test, p.05). Therefore, an independent sample t-test was conducted to test for significant differences between the two groups.

## Results

**Chemistry Lesson Plans Design**
**The strength and Areas of improvement.**

The study's indicators show that lesson plans were an essential tool in the classroom (Roxana 2018). Each teacher was able to distinguish students' and teachers' activities to evaluate lessons using oral questions. Opportunities such as group and collaborative learning were highlighted in their typical plans, even though students' involvement was restrictive or controlled in some plans. In addition, the coherence and appropriateness were relatively demonstrated in achieving learning objectives.

**Teaching Categories.**
**Lesson Organisation.**

This section involves setting up and sharing lesson objectives, purpose, relationships with the previous lesson, expectations, and opportunities for students to think. Therefore, in Table 1, "no evidence during the entire class session" was 71%, showing poor demonstration; "evidence for about 2/3 of the entire class session" and "prominent evidence during the entire class session" each had 14%, indicating weak demonstration.
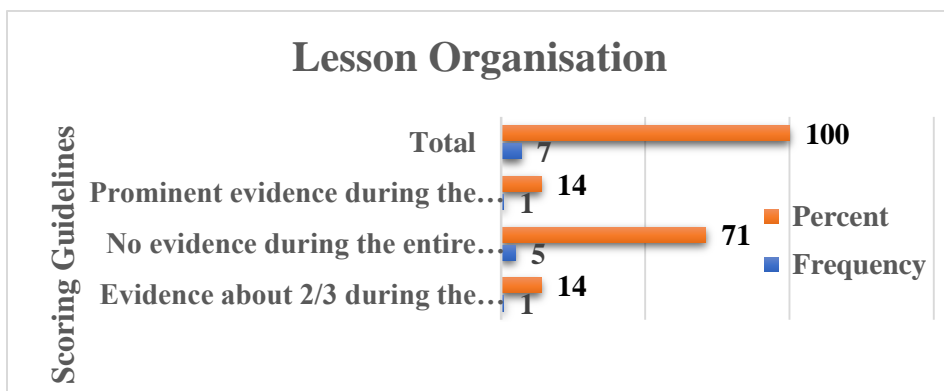


**Figure 1. Lesson organisation by teachers**

**Activities Teaching.**

Activities teaching, including steps, the definition of unfamiliar terms, explaining concepts with different strategies, promoting constructive criticism, and clarifying misconceptions. However, "no evidence during the entire class session" and "limited evidence during the entire class session", each scored 14%, revealed weak demonstration. "Evidence for about 2/3 of the entire class session" was 43%, indicating weak demonstration, while "prominent evidence during the entire class session" got 29%, showing another weak demonstration (Table 2).
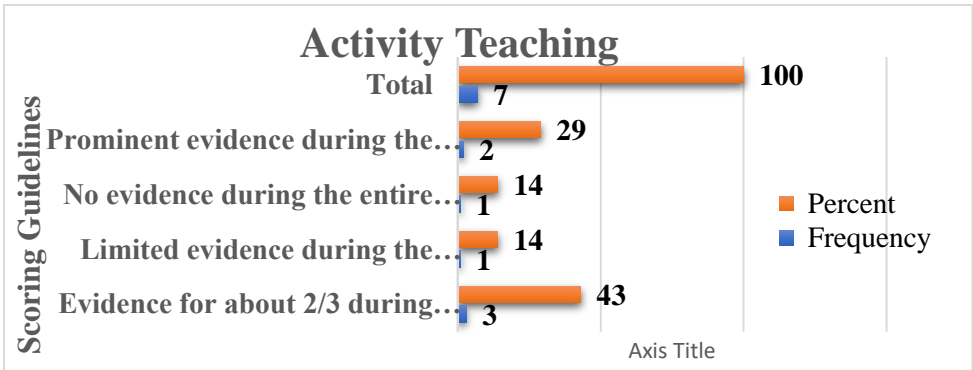
Figure 2 Activity Teaching practice by teachers

### Pedagogical Approaches

It involves but not limited to assessing students' prerequisite knowledge, waiting time during teaching, encouraging students' engagement, promoting active participation, assessing formative questions, forming groups, and promoting critical thinking. For example, in Table 3, "no evidence during the entire class session," "limited evidence during the entire class session," and "evidence for about 2/3 of the entire class session" each scored 14% showing a weak demonstration. In comparison, "prominent evidence during the entire class session" was 57%, indicating moderate demonstrations.
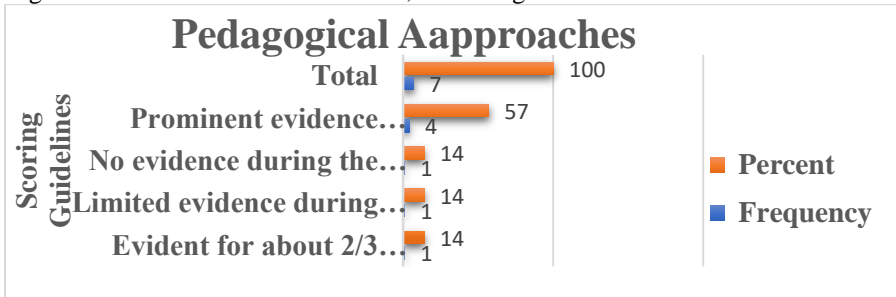


Figure 3. Pedagogical approaches by teachers

### Teacher-Students Interaction

Another sensitive category involves listening to responses, modifying and improving them, avoiding students' embracement or belittling, respect, sensitivity to diverse learners, giving assistance while students are in groups, encouraging them to generate ideas, and responding appropriately to students' answers or behaviour, amongst others. In this aspect therefore, in Table 4, "no evidence during the entire class session" was at 14%, showing weak demonstration; "limited evidence during the entire class session" and "evidence for about 2/3 of the entire class session" each scored 43%, revealing weak demonstration.
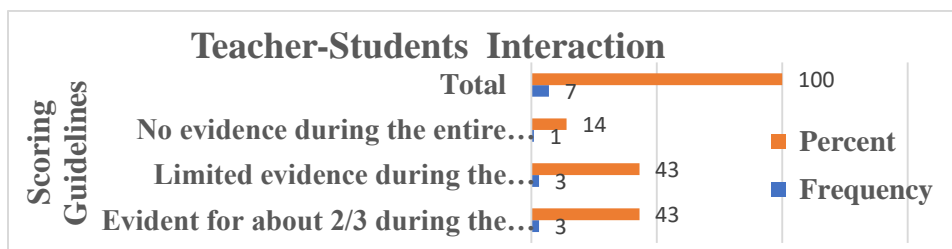
Figure 4. Teacher-Students interaction

**Collaborative Learning**

In Table 5, "no evidence during the entire class session" scored 29%, a weak demonstration, while "Limited evidence during the entire class session" was 57%, indicating a weak demonstration. "Prominent evidence during the entire class session" was 14%, showing a weak demonstration.
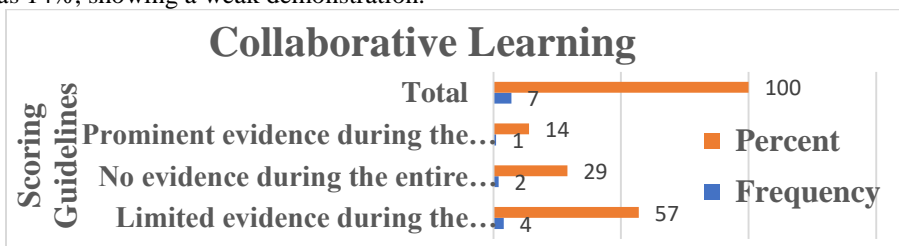


Figure 5. Collaborative Learning practice by teachers

**Instructional Resources**

Provides precise tasks for students, opportunities to interact, share, discuss, time management, synthesis of group activities, and other teaching and learning resources. For example, in Table 6, "no evidence during the entire class session" scored 43%, and "prominent evidence during the entire class session" was 57%, indicating moderate demonstration.



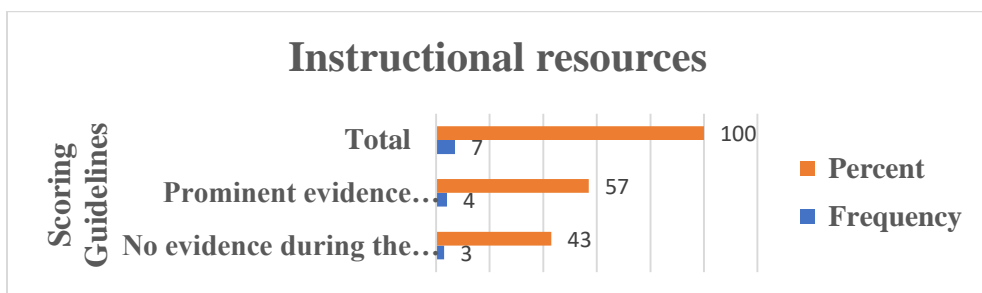Figure 6. Instructional resources utilisation and provision

**The effect of chemistry lesson plan design on Students' performances.**

The post-test results show that the experimental group had a mean of 40.30 with a standard deviation of 18.971, while the control group's mean was 28.180 with a standard deviation of 13.753 (Figure 7), which shows a mean difference of 12.121 (Table 1).
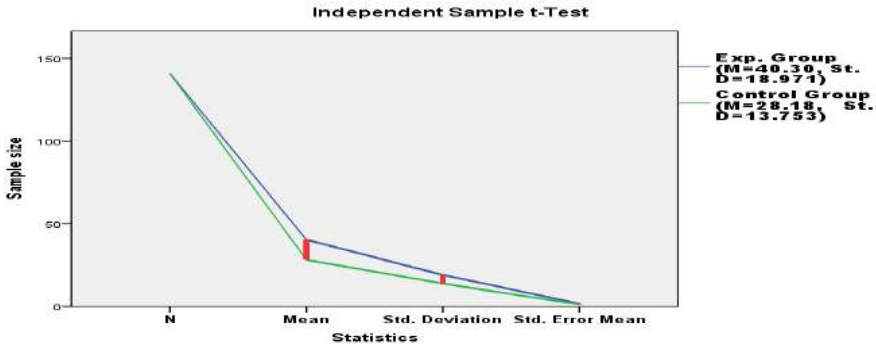


Figure 7: Academic Achievement Means and Standard Deviations for Exp. & Control group.

**Table 1: Independent sample t-test for Experiment and Control groups**

| | t-test for Equality of Means | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | F | t | df | Sig. (2-tailed) | MD | SD | 95% Confidence interval of the difference | |
| Experimental & Control Groups | | | | | | | Lower | Upper |
| | 20.888 | 6.142 | 280 | .000 | 12.121 | 1.973 | 8.236 | 16.005 |

## Discussions

### Chemistry Lesson Plan Design
*Strength*

The reviews showed that teachers were confident in lesson plan design, even though they used the same trajectory. Lesson topics to conclusions were operational indicators that teachers often considered and applied relevant information despite being unrealistic. Regardless, their ideas and efforts show that planning was a critical instructional tool to support teaching and learning (Margarita & Rodriguez, 2007). Its importance extends beyond improving teaching and learning but keeping track of what the teacher was doing (Fer & Nellie, 2019).

The worksheets were provided for students, and works were proposed to be done either in groups or individually. Also, safety precautions were highlighted as students supposed to interact with acids and bases, which was another essential strength

in the lesson design. In addition, the plans highlighted numerous statements to brainstorm or recap the lessons to mark the beginning of the lesson (introduction). Activity columns for students with specified resources to perform the task were also stated, hoping to engage students in active participation, even though most activities were teacher-centred (Masoka & Gathambiri, 2008). Accordingly, lessons were evaluated and concluded with activities either as assignments or classwork (Coenders et al., 2010).

### *Areas of Improvement*

Almost all teachers were challenged to design an interactive lesson plan and might be challenging to retract the activities and students' learning (Hanna et al., 2020). One of the ultimate goals for a teacher in the classroom was to provide the best for students, and if this goal was not met, the teaching quality could be compromised. Their plans were not activity-based learning (Joof, 2014), encouraging students to participate, but mere memorisation (Hanna et al., 2020). In the same vein, lesson objectives and activities were so ambiguous that they may not be achievable, as demonstrated during regular teaching. Setting up too many objectives might cause unresolved questions or misconceptions, and, for example, misconceptions may stay in students' minds longer if corrections are not done. Therefore, teachers should endeavour to prepare adequately and employ student-centred instead of teacher-centred teaching methods (Eilks et al., 2013). Teachers should not be doing every activity (Byers & Eilks, 2009) with limited opportunities or activities to do (Hanna et al., 2020).

Furthermore, even though sample oral questions were not provided at evaluation, they emphasised "lesson was successfully taught", almost in all plans. Writing sample evaluation questions was as important as the lesson activities and content. A scenario could be a teacher who prepared a lesson to teach and was absent. Another teacher can be assigned to teach the lesson in class. It might be challenging for the substitute to teach and evaluate students without a comprehensive guide, even if prior knowledge was adequate. This suggests that it was essential to provide clear and unambitious instructions in the lesson plans for anyone can use.

In another situation, the teaching and learning resources were limited to textbooks, chalks, chalkboards, and A4 paper. These resources, however, were not even adequately specified for the activities they should be used. Although few plans mentioned some necessary reagents and apparatus, excluding technology, which it may be thought was not an option.

### Teaching Categories in Chemistry Classrooms

Generally, teaching categories were challenging for teachers, as indicated by the frequency per cent scores. According to Hinduja et al., (2020), teachers need support even though they were professionally trained to become teachers. On this basis, continuous professional development (CPD) was factored in most countries' development agendas for teachers, particularly in chemistry education. Because chemistry education has been affected by many factors such as instructional hours, pedagogy, and teacher salaries (Blonder & Mamlok-Naama, 2019), these factors were one of the challenges that may affect teachers' lesson organisation, as determined by their frequency per cent scores (Table 1). Despite the fact that these teachers were teaching from ten years and above,

they could not influence the good practice of lesson organisation or support students academically. However, Lapcharoen (2021) found no relationship between competence and teacher academic achievements. Itbar et al., (2020) also found no significant effect of teacher experience on the performance. This means that students may not have the opportunity to explore and interact with the materials in such classrooms. Without this opportunity, students may be discouraged from working or forming groups.

Activity learning was also inadequately demonstrated (Table 2), as shown by their frequency per cent scores on guidelines. The 29% of teachers who showed practice evidence were supported by the technology (smartboards), even though they did not include technology in their lesson resources. Others spend more time explaining the theoretical concepts without experiments or hands-on activities (Masoka & Gathambiri, 2008), not knowing that students learn best in active mode and from different perspectives (Bayram-Jacobs et al., 2019). Consequently, it took students longer than usual to grasp critical phenomena about "how" or "why" colour change after adding bromomethyl indicator during titration between sulfuric acids and sodium hydroxide solution. Similarly, the quantitative measurement and calculation of acids and bases, which were supposed to be students' activities using the physical materials, were done by teachers and asked students to observe and explain. In reality, students should follow the procedure with unambiguous instructions sheets until they reach conclusions.

In contrast, the pedagogical approach was moderately demonstrated with 57% (Table 3), which shows teachers were flexible in the classroom to influence quality teaching and learning. Pedagogical approaches are essential to achieving curriculum objectives and improving teacher quality. Susan and Margaret (2015) and (Qing et al., 2010) added that appropriate pedagogy promotes relationships amongst subjects. Electron transfer, for example, can be taught by using the example of the work of electrons in an electrochemical cell in physics and chemistry or osmotic pressure in biology. Connecting these ideas with scientific knowledge or principles can assist students in appreciating sciences and their relationships.

Teacher-student interaction was another critical and crucial category in teaching. This category was expected to be cordial and responsive every time as it can reflect positively on students learning needs and challenges (Alvarez-Bell et al., 2017). However, the frequency per cent generated in Table 4 was inadequately practised. During lesson observation, at some point, students were not responding to questions due to inappropriate teacher-student interaction. Their responses or answers were not adequately considered in the class, and the teacher ended up doing everything while the students copied notes. Masoka and Gathambiri (2008) classified this as teacher-centred Teaching in Africa because teachers do everything, including problem-solving. In a particular classroom, students were bullied, which was against Policy (Education Policy [EP]2004-2015). Their wrong answers can be encouraged and motivated by giving them what was appropriate and correct than just condemning them.

Collaborative learning was another difficult task for teachers, as indicated in Table 2. Consequently, learning misconceptions emerged when students calculated titre values and reported their findings independently. For example, the addition of 2 cm$^3$ of

bench sulphuric acid ($H_2SO_4$(ag)) to 2 cm$^3$ of barium chloride ($BaCL_2$(ag)). Each student was asked to report their findings, and most of them reported that ($BaSO_4$) barium tetraoxosulphate (VI) was observed instead of a white precipitate. After our investigation, "why," coincidentally, we found the same answers provided in the teacher's marking scheme, which shows that teachers also have challenges in scientific reporting on experimental procedures (Bayram-Jacobs et al., 2019) and content knowledge (Teemu et al.,2020). In scientific reporting, there is no way you can observe the formula or name of a white precipitate or substances in the test tube because these are not observable features. Teachers were almost doing every activity, discouraged in many studies (Eilk et al., 2013; Byers & Eilks, 2009). Students can guide themselves through the activities with a correct and unambiguous instruction sheet. Students' collaboration was not for grouping but to support one another to improve (Johnson & Johnson, 2005) and restore their confidence in the subject matter (Harvey, 2016). It also could be a platform to manage the classroom, including respecting students' opinions during concept discourse.

Instructional resources were also moderately demonstrated with a frequency per cent of 57 (Table 6). Teaching and learning without evaluating and providing resources may be tantamount to learning deficiency because they are one of the pedagogical tools that should not be underestimated (Bayram-Jacobs et al., 2019). The importance of resources was not limited to only provision but also as a platform for students to engage effectively through hands-on and minds-on (Eilks et al., 2013). However, most resources were limited to chalks, chalkboards, A4 paper, textbooks, and pupils. Few mentioned or utilised reagents, apparatus, and worksheets due to inadequate resources in schools (Igharo et al., 2011), and there was no way they could improvise without the support (Joof, 2014). For example, in some classrooms, protective gear (gloves and lab coats) to protect students against acid burning was utterly missing, and students were worried and afraid to touch acids with their bare hands. Similarly, the missing bromomethyl indicators during experimentation could have been improvised with red cabbage to test for acids or bases rather than waiting for the school to provide them.

**The Effects of chemistry lesson plan design on students' performance**
Performances show that teachers need professional development, as significantly reflected (Ali & Hamza, 2018). The independent sample t-test shows that the Mean difference between the experimental and control groups was 12.121 (p=.000, t=6.142, and df=280) at a 95% confidence level (Table 7). Other studies similarly found significant difference in their exploratory evaluation (Satter & Awan, 2019; Byers & Eilks, 2009; Ali & Hamza, 2018). Therefore, the results show that additional intervention was needed to improve teachers' performance. Hinduja et al., (2020) similarly recognised the importance of intervention on teachers to improve students' performance. Nevertheless, there were controversies after the intervention for continuity if the underlining challenges such as instructional hours, pedagogy, and teachers' motivation are not improved (Blonder & Mamlok-Naama, 2019).

**Conclusion**
The study was a participatory approach with few selected chemistry teachers and students. It revealed the strength and areas of improvement in teachers' lesson plan design by showing all operational indicators. This study found that teachers were confident in lesson plan design, even though they used the same trajectory. Lesson topics

to conclusions were operational indicators that teachers often considered and applied relevant information despite being unrealistic. Regardless, their ideas and efforts show that plans were critical instructional tools to support teaching and learning.

The actual reflection of teachers' lesson plans was manifested during teaching actualisation in classrooms. It was found that teachers' pedagogical approach and instructional resources utilisation and practice were moderate among the teaching categories. Other categories in the study were inadequately practised, and these teachers taught for more than ten years at secondary school. These results show that teachers need continuous professional development, as it positively reflects on students' academic performances, favouring the experimental group. Other factors can be attributed to the differences in performances, such as teaching approaches from teacher-centred to students-centred, instructional resources, the ability of students, and motivation. The intervention in the educational research was another important phenomenon that can encourage the researcher to use all approaches available to understand the problems.

Similarly, the positive relationship between years of teaching and effective teaching practice was not found in this study and therefore suggested for future studies. The attributes were the teachers' irregular planning of the lessons, the nature of instructional hours, teacher and students' motivation, and teachers' pedagogy. This implies that effective lesson plans and teaching can lead to better learning of core competencies in the Gambian context if they were to be monitored and improved extensively. However, a further study that will determine the level of effectiveness of the case study by comparing the difference between pre-test and post-test scores may be needed in the future, as this will indicate a better measure.

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# The Impact of People's Business Credit Program, Minimum Wage, and Investment on Indonesian Poverty

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Poverty is one of the serious problems inhibiting the national development process in Indonesia. It is usually measured for a person using the benchmarked poverty line with the values observed to be different between regions. This means some areas have a high poverty line while some have a low poverty line and this further influences the poverty rate in the country. Therefore, this survey was conducted to determine the impact of People's Business Credit (KUR), State Minimum Wage (UMP) and investment on Indonesian poverty. Processes involving the use of secondary data over the period 2016-2021analyzed by multiple regression analysis using a panel data approach and E-views. The results showed that KUR and investment do not have a significant influence while UM has a significant effect on poverty alleviation .

*Keywords*: people's business credit, state minimum wage, investment, poverty

The phenomenon of poverty has been prevailing for a long time and is reported to be one of the fundamental problems usually focused on by the governments in different countries (Tubaka, 2019). This is usually caused by several factors, including B. Low economic growth, health, and education (Efendi et al., 2019). Several efforts have been made to overcome poverty but the problems have proved difficult to solve. This was further confirmed by the World Bank as quoted from katadata.co.id (Victoria, 2020) that the COVID-19 pandemic has driven 71 million people into extreme poverty, based on an international poverty line of $ 1.9 a day. Almost every leader in Indonesia up to the present dispensation has been faced with the issue of poverty and this means it has become a phenomenal problem in the country's history. It is one of the factors hindering national development without any significant solution up to the present time. Some of the factors observed to be causing poverty in Indonesia and which are often ignored include lack of honing or human resource skills which reduces the competitiveness of individuals in the labor market, increased unemployment, inability to manage available natural resources, narrow employment opportunities, foreign management of industries and several others. Meanwhile, the country has been discovered to be focused on improving the welfare of its citizens with most observed to be living below the poverty line which ranges from high to low depending on the region.

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According to Badan Pusat Statistik (BPS) (2021), The average monthly consumer spending per capita by Indonesians is below the poverty line. This is equivalent to 2,100 kcal per person per day, which is a basic non-food demand. According to BPS, from 2013 to September 2020, Indonesia's poverty rate increased in number and proportion. The information retrieved from the September 2020 National Economic Survey quoted from BPS.com (2021) also showed that the proportion of the poor increased to 10.19% in September 2020, 0.41% in March 2020, and 0.97% in September 2019. The number of poor people in the country in September 2020 is also estimated to be 27.55 million, up from 1.13 million in March 2020 and 2.76 million in September 2019 as indicated in Figure 1.



Source: Official News OF BPS Statistics

Figure 1: *Indonesia's Poverty Profile*

Governments can use this data as a resource for developing poverty alleviation policies. In addition, at the central, state, district or city level of the country, some efforts have been made to reduce poverty. This is indicated by a cluster of four groups or programs: 1) A support program to fulfill the group's basic rights of a family-based integrated society. 2) Community-level poverty reduction program group. Based on the principles of community empowerment, it aims to increase the likelihood and capacity of poor people to participate in development. 3) An empowerment-based micro and SME poverty alleviation program group aimed at strengthening micro and SME access and strengthening the economy. 4) Other programs can directly or indirectly improve economic activity and the welfare of the poor (Hermawati, 2018). However, Indonesia's poverty alleviation program adopts a social assistance approach. Indonesia's history has documented some of the alleviation of poverty through a social welfare approach. Social assistance in the form of social protection, social security, social empowerment, social rehabilitation and basic services (Diana & Seprina, 2019).

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An example of a social aid approach to poverty reduction is People's Business Credit (KUR), a program within the Small Business Empowerment (Cluster 3) -based Poverty Reduction Program Group. Moreover, Damayanti and Adam (2015), Similar to Iztihar (2018b), The Indonesian government has shown that it is making efforts to properly shift the sector through the UMKM sector, which is making a significant contribution to the national economy. UMKM is dominated by micro enterprises, with micro enterprises accounting for about 98.68%, estimated labor absorption capacity of 89% and GDP contribution of only 37.8%. These micro enterprises are also the first to meet the most important needs of the community, with high turnover and using domestic production processes. As a result, the government has taken various measures such as interest replenishment of loans, credit restructuring, provision of working capital guarantees, and tax incentives. It is important to note that KUR is normally used to provide interest subsidies to strengthen UMKM and Rp. 670.5 trillion with an outstanding of Rp. 231.2 trillion and NPL is 0.46% NPL were reported to have been distributed from August 2015 to December 31, 2020. Moreover, the distribution reaches 100% or even more almost every year through the cooperation of all KUR stakeholders. This indicates the commitment of the government to assist the continuous growth of UMKM to ensure they become the "sokoguru" of the Indonesian economy (kur.ekon.go.id). The targets and realizations of KUR from 2015 to 2020 are presented in the following figure 2.
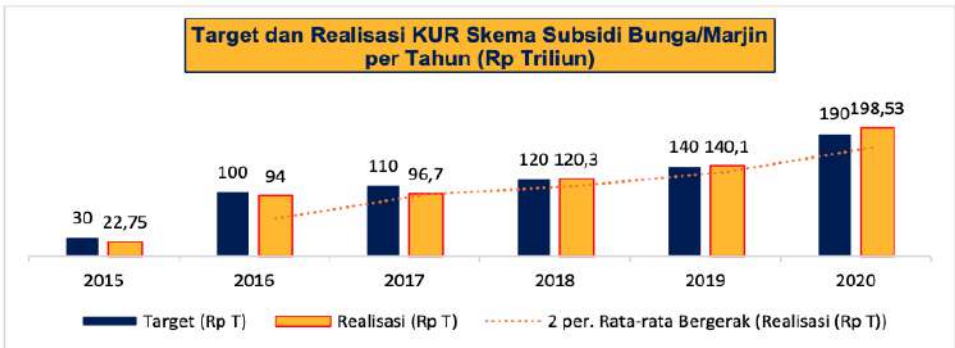


Source: Data of the Financing Policy Committee for UMKM
Figure 2: *Target and Realization of KUR 2015-2020*

The figure shows that the target set to be achieved in the KUR program was 190 T while the realization was 198.53 T with the ultimate aim of reducing poverty. It was discovered by Gustika (2016) that KUR has a positive impact on the income of those who run small and medium-sized enterprises (UKM) and this was further confirmed by Iztihar (2018) as indicated by increase the number of UMKMs, their workforce and production, and the region's Gross Domestic Product (PDRB), thereby reducing poverty. In fact, with the existence of the People's Business Credit (KUR) program from the government, which is considered in the implementation of poverty reduction programs, it is hoped that it will be able to increase the ability and human capital and social capital of the poor. One example is the importance of efforts to help the poor in starting small (micro) businesses that are expected to increase their productivity and income. Indonesian SMEs (MSMEs), which have the potential to contribute to economic growth, are the largest number of

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entities in Indonesia. The government program, People's Business Credit (KUR), is expected to become one of the pillars of MSME capital later. According to the theory of poverty circles, the existence of funds (KURs) can lower poverty levels, but in reality the distribution of KURs is increasing, but it does not guarantee the number of poor people, so KURs. The program is not effective decrease.

The other poverty alleviation programs implemented have taken a production approach reflected in the Minimum Wage Policy (UM) aimed at giving each region the freedom to set UMP/UMR (state/region minimum wage) levels. It was based. This is necessary to protect businesses and simultaneously maintain continuity of work for employees during the economic challenging period in Indonesia. It is important to note that the welfare of a community depends on the income obtained through wages by the residents. This means that increased income can have a positive impact on people's well-being and vice versa (Ningrum, 2017). Furthermore, the assessment of the government showed that several companies were affected by the pandemic and have difficulty in fulfilling workers' rights including the payment of wages. This led to the formulation and implementation of the UM policy as one of the national strategic programs to reduce poverty and promote Indonesia's economic progress through fair and competitive wages (Handoyo, 2021). Moreover, the Minister of Manpower (Menaker) Ida Fauziyah announced that the simulation of the 2022 UMP average increase based on Government Regulation No. 36 of 2021 concerning wages led to a 1.09% increase (Sandi, 2021). The 3 simulated scenarios for the increment in UMP for 2022 are presented in the following figure.



Source: Ministry of Manpower

Figure 3: *Increase in UMP*

The figure shows that almost all the provinces experienced an increase in the UMP and this is expected to reduce poverty rates in the country. This is in line with the previous findings of Sutikno et al., (2019) and Faizin (2021) that UM has a significant effect on poverty rates. Family income significantly determines household poverty (Edem et al., 2020). Wage fixing policy the minimum by the government is a policy implemented with the aim of as a safety net for workers or laborers so as not to be extrapolated in working and earning wages that can meet the needs of life minimum (KHM). If the minimum needs of life can be met, then the welfare of workers improves and is free from the problem of poverty. However, although minimum wages are raised each year in some regions, the minimum wage setting is still relatively low, as the minimum wage setting is still below the proper standard of living (KHL).

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Another program resulting from poverty reduction is investment, which is defined as the mobilization of resources to generate or increase future capacity or income. It is important to note that the active participation of all skilled workers in the economy can increase the production of goods and services in order to promote further economic growth. Investment is a strong link between economic growth and poverty alleviation (Ruranga et al., 2012). This was further confirmed by Pateda et al., (2017) that investment influences the level of poverty. Another study by Pratama and Utama (2019) also showed that one of the factors with the ability to reduce the poverty rate is an investment due to its positive relationship with the improvement of people's welfare. Therefore, the more people invest, the more jobs will be created, the lower the unemployment rate and the lower the poverty rate. But in reality, investment has a negative impact on Indonesia's poverty, but it has a trivial impact.

Based on the above thoughts, it is known that the Indonesian government realizes that poverty is not an easy problem to overcome, not a difficult thing to strive for. However, these programs are expected to be able to alleviate national poverty. The author considers that although the government has implemented these three programs in solving poverty, the reality is that the results obtained have not been optimal in solving poverty in Indonesia. , Habibah, Ghofur, Anggraeni and Malik (2020) said that the poverty rate of the Indonesian population has not decreased significantly from year to year. Therefore, the poverty rate in Indonesia still needs more attention from the Indonesian Government (Murdiyana & Mulyana, 2017).

Therefore, the author looks at this to find out how people's business loan programs work, minimum wage, and investment affect it is necessary to conduct a more detailed research study. Therefore, the author is interested in raising the title of "**The Effect of People's Business Credit Program, Minimum Wage, and Investment on Poverty in Indonesia**".

**Literature Review**
**Poverty Circle Theory**

The poverty circle paradigm is a picture of an infinite causal relationship between income, poverty, savings, and investment. It shows that a low domestic income obtained due to low productivity usually increases poverty. This causes the level of domestic savings to be low which also leads to a low level of domestic investment, and subsequently lack of capital in an area. This can lead to lower domestic productivity, lower domestic income, and a virtuous cycle of poverty.

Ragnar Nurkse (1953) in Kuncoro (2004) argued that a poor country is poor because its poverty has no end which means such a country has nothing and this makes it suffer from poverty. According to Cambers (1983), poverty is understood as a state of lack of money and supplies to ensure survival, but the concept is 1) poverty, 2) helplessness, 3) vulnerability to emergencies, 4) dependence, and 5) alienation. Sociology is comprehensively explained along with five aspects, including the ones that are alienated. Poverty is a measure of both ordinal and cardinal welfare (Sen, 1976) and a more complex concept was introduced by Sen (1999) using a more complex approach in the form of its basic capabilities. This led to its continuous evolution from a utility approach to the definition based on the loss of income, food, shelter, employment opportunities, physical aspects, and productive resources. Meanwhile, it is expressed as

the inability to access clean drinking water, health facilities, risks in life, uncertainty about the future, and loss of voting rights.

Kuncoro (2004) states that poverty can be caused by 1) Unequal resource ownership patterns leading to unequal distribution of income, and 2) disparities in the quality of human resources that lead to lower productivity and profits. Was shown. This is usually associated with a low level of education. 3) Differences in access to capital. These three reasons underlie the virtuous cycle of poverty.

Poverty can also be caused by corrupt government practices as well as low law enforcement and government accountability. This is indicated by the findings that corruption has an indirect effect on poverty due to its reduction of the government's ability to develop programs related to poverty reduction. Another study also showed that the damage to social and human conditions is the main source of poverty (Triesman, 2002).

It is important to note that poverty includes access to the economy and wealth as well as political, socio-cultural and psychological aspects. It has been observed that these dimensions are interrelated and intertwined (Ravallion & Galasso, 2005). The characteristics of poverty are (1) lack of access to the decision-making process regarding their lives (politics), (2) exclusion from the major existing institutions (society) of society, and (3) quality. Health, low income (economy) education and skills, including low human resources (SDM), (4) low labor ethics, short-term thinking, and a culture of low-quality human resources such as deadly (culture / value) Confined, (5) low ownership of physical assets, including environmental assets such as clean and clear water. It has been discovered that these conditions can make it impossible to meet basic human needs such as clothing, food, housing, affection, safety, innovation, freedom, participation and leisure.

### People's Business Credit (KUR)

There is a significant need for the role of government in poverty alleviation concerning the allocation, distribution, and stabilization of resources and this is necessary to achieve the development goal of reducing poverty. Moreover, the budget issued can be used for this purpose and several other development problems. This was confirmed by Hasibuan (2005) that There is a negative correlation between household income and number of poor, which means that an increase in household income tends to lead to a significant decline in the poverty rate. It is important to note that budgets are usually allocated for short-term and long-term poverty alleviation programs. The findings of Hasibuan were further amplified by Alawi (2006) that facts explain that the funds allocated to improve the economic capabilities of the people are negatively correlated with the severity of poverty.

As a result, the government implemented KUR and promoted increased access to formal adult financial services in Indonesia (Damayanti & Adam, 2015; Iztihar, 2018; Saleh, 2015). It is expected to assist in reducing the poverty rate and ensuring economic growth is more evenly distributed through the transfer of the real sector through the UMKM (Micro, Small, and Medium Enterprises) sector. KUR loans were designed to provide financial access to UMKM that do not have sufficient collateral and require capital by the provisions. They are credit programs created by the government to reduce the intensity required by the borrowers to repay loans (Suryani, 2018).

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These changes focused on various aspects such as extended distribution schemes, recipient coverage, and channeling agencies. Moreover, local governments were promoted to participate actively in optimizing the distribution process (Aristanto, 2019) and this was observed to have led to changes and dynamics in the process of implementing the KUR program. KUR is a small business cooperative (UMKM-K) credit or financing support through working capital and investment backed by guarantee facilities to ensure a productive business. It was launched by the government, but the funds were completely withdrawn from the bank. KUR is expected to stimulate business actors to increase their business activities towards enhancing the productivity in the real sector as well as an increment in added value which can later be used as a component of Gross Regional Domestic Product (PDRB). Previous studies have found that the distribution of KUR funds has had a significant positive effect on Indonesian PDRB. Because we also need money to maintain our business and cover the needs of our production processes.

### Minimum Wage (UM)

Government Regulation of Indonesia Number 78 of 2015 concerning Wages divides UM into (a) provincial, (b) district/city; (c) provincial sectoral, and (d) district/city sectoral UM. These wages are usually determined by the governor as the regional head based on the need to ensure decent living for workers as well as to enhance productivity and economic growth. Decent Living Needs (KHL) is the standard requirement for a single worker to have the ability to live a decent life for one month. Meanwhile, Sukirno (2005) differentiated nominal and real wages by defining nominal wage as the amount workers receive from employers as payment for the mental and physical labor used in the production process, while real wage was explained as the wage level of workers measured based on its ability to buy goods and services needed to meet their needs.

An entrepreneur normally uses the factors of production to ensure receiving or is rewarded based on the amount of value-added to the marginal product to maximize profits. This means workers are employed in such a way that the added value of each person to the marginal output is equal to the wages received or the level of wages paid by the entrepreneur (Hirshleifer, 1984). The previous study by Doucouliagos and Stanley (2009) showed that an increase in UM led to a reduction in employment by a comparable value, specifically for the workforce from a young age. Moreover, Schmitt (2013) discovered that the reduced absorption of labor due to UM was caused by workers working harder in response to the minimum wage. Sen (1997) reported that unemployment does not only cause a low-income problem but also burdens the country due to low productivity which can lead to the diversion of the money initially budgeted for fiscal needs to assist unemployed families. Burkhauser (1989) found a weak relationship between low income and poverty and also exhibited a weaker relationship over time, while Card (2000) reported that UM was unable to reduce poverty in America.

### Investment

Samuelson and Nordhaus (2004) defined investment as the addition of capital stock or goods such as production equipment, buildings, and inventory items in a country within one year. Investment is an investment in one or more assets owned and usually long-term in the hope of getting a profit in the future (Sunariyah, 2011). According to

Sukirno (2000), investment activities carried out by the community will continuously increase economic activities and employment opportunities, increase national income and increase the level of prosperity of the community. We know that increasing investment activity can reduce unemployment, but it can increase people's income and wealth (Sakinah & Pudjianto, 2018). Moreover, investment involves spending on business expansion and new equipment to increase capital stock which is an important determinant of economic output due to its ability to change over time to improve the economy (Mankiw, 2006). The previous study by Kuncoro (2013) also showed that a large physical capital stock obtained through a high investment ratio can lead to a high PDRB and high income. The importance of investment activities in community development is associated with three important functions which include their ability to (1) Investment is one of the components of total spending, so increasing investment increases aggregate demand, national income and employment opportunities. (2) Increasing capital goods as a result of investment increases production capacity, and (3) attract technological developments (Sukirno, 2013).

## Method

A quantitative approach was used to determine the influence of KUR, UM, and investment on poverty alleviation in Indonesia. This method involves the application of empirical studies to collect, process, analyze, and display data in the form of numbers rather than narratives and to make attempts toward the accurate measurement of a concept. The data used is secondary data from 34 provinces in Indonesia in the 2016-2020 period obtained from Bank Indonesia through the official website, and the Central Statistics Agency. The dependent variables used in this study consisted of KUR, Minimum Wage, and Investment while the dependent variables were the number of poor people. The data collection method is carried out by literature studies. This study is a technique to obtain information based on the results of records, literature, documentation and others related to this research.

The design of this study is observational research on causality where the object of this study is poverty, KUR subsidies, minimum wages, and investment poverty in Indonesia in 2016-2020 with provinces as the unit of analysis consisting of 34 provinces.

a.  Poverty is the average spending gap for every poor compared to the poverty line.
b.  KUR subsidies are the number of business loans to individuals realized in the state, measured in rupiah.
c.  The UM complies with the Secretary of State's Human Resources and Reincarnation Rule No. 7 and indicates a minimum monthly wage consisting of a basic and fixed allowance set by the Governor as a safety net. Measured in rupiah.
d.  Investment is the level of private investment in the state.

This study uses quantitative analysis. Quantitative analysis is the analysis of data using mathematical, statistical, and econometric model models. The method of this study used panel data regression. Panel data is a combination of time series data and section data. According to Ghozali (2018), panel data regression is a regression method that combines time-series data and cross-section data. By combining time-series data and cross-section data, more useful and diverse data, the degree of co-linearity between variables is low, and the degree. Will be higher. Freedom and efficiency. The analysis was carried out by processing data through the Econometric Views (E-views) program

version 12. The selection of a panel data regression model to test the regression equation to be estimated can be used by two examiners, namely the chow test and the Hausman test.

First, a classic hypothesis test is used before the data is regressed. This is so that the regression model is free from bias. The equation used to determine the relationship between the variables is presented as follows:

$$Y = f(X_1, X_2, X_3)$$

Information
$X_1$ = KUR Subsidy (Rupiah)
$X_2$ = Minimum Wage (Rupiah)
$X_3$ = Investment (Rupiah)
$Y$ = Poverty (Percent)

The hypothesis tests in this study are partial test (t test) and simultaneous test (F test). The t-test is used to determine (partially) the effect of the independent variable on the dependent variable individually (partially). The t-test can be performed by comparing the calculated t with the t-table (Ghozali, 2018). At a 5% significance level using the tester criteria, if t-number and p-value> 0.05, then H0 is accepted and H1 is rejected. That is, one of the free (independent) variables has no effect. Bound (dependent) variables are important. If t-number> t-table and p-value <0.05, then H1 is accepted and H0 is rejected. This shows that one of the free variables has a large effect on the bound (dependent) variable. The F-test, on the other hand, is used to test the capabilities of all independent variables together to explain the dependent variable. Ghozali (2018) test can be run by comparing the F-count to the F-table at a significant level of <0.05 relative to the tester's criteria when the F-count> F-table and the f-statistic p-value <0.05. If, H0 is rejected and H1 is accepted. This means that the independent variable works together with the dependent variable. If the F-number the F-table and F-statistics> 0.05, then H1 is rejected and H0 is accepted. That is, the independent variables are independent of each other and do not affect the dependent variable.

## Results

### Chow Test (Common Effect Model vs Fixed Effect Model)

Using the Chow test, 1) a better approach between the common effects model (CEM) and the fixed effects model (FEM) based on the criteria that H0 is accepted when the probability value of the P-value cross section is F. Was selected. If it is greater than 0.05, this means that it is the correct model of choice for CEM. 2) If the probability value of the P-value cross-section F is less than 0.05, H0 is rejected and H1 is accepted. This is the correct model to use FEM. The hypothesis used in the Chow test is:

$H_0$: Common Effect Model (CEM)

$H_1$: Fixed Effect Model (FEM)

**Table 1**

*Chow Test Results*

| Effects Test | Statistics | df | Prob. |
|---|---|---|---|
| F | 232.138841 | (33,167) | 0.0000 |
| Chi-square | 784.872677 | 33 | 0.0000 |

The table shows that the resulting value in the statistical distribution of Chi-square based on the processing of the calculation results using E-views 12 is 784.872677 with the probability value (P-value) of the cross-section F is 0.00000.05 and this means hypothesis H0 is rejected and H1 is accepted, thereby indicating FEM is more appropriate.

### Hausman Test

The Hausman test was used to compare the random effects model with the FEM and select the most appropriate model based on the following criteria: H0 is rejected if 1) the chi-square probability value is greater than 0.05 and the correct model to use is the random effects model (REM) and 2) the chi-square probability value is less than 0.05. This means that FEM is the right model to choose from. Moreover, the hypotheses formulated are as follows:

$H_0$: Random Effect Model (REM)

$H_1$: Fixed Effect Model (FEM)

The results of the Hausman test are presented in the following table.

**Table 2**

*Hausman Test Results*

| Test Summary | Chi-Sq. Statistics | Chi-Sq. df | Prob. |
|---|---|---|---|
| Random cross-section | 3.612945 | 3 | 0.0006 |

The table shows that the resulting value in the statistical distribution of Chi-square based on the processing of the calculation results using Eviews 12 is 3.612945 with the chi-square probability value being $0.0006 \leq 0.05$ and This means that H0 is rejected and H1 is accepted, indicating that FEM is more suitable. This resulted in a panel data regression test using FEM and the results are shown in Table 3.

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**Table 3**
*FEM Test Results*

| Variable (Y) | Variable X | coef. | Std. Error | t-Stat | Prob |
|---|---|---|---|---|---|
| | constant | 10,928 | 1991 | 5.492 | 0.000 |
| | KUR | 0.025 | 0.021 | 1.181 | 0.239 |
| | UM | 0.604 | 0.128 | 4.705 | 0.000 |
| | Investment | 0.020 | 0.036 | 0.565 | 0.572 |
| | **Fixed Effect** | | | **Coefficient** | |
| | _Aceh | | | 1.057512 | |
| | _Sumatera Utara | | | -0.403998 | |
| | _Sumatera Barat | | | -0.971586 | |
| | _Riau | | | -0.733464 | |
| | _Jambi | | | -0.702446 | |
| | _Sumatera Selatan | | | 0.304925 | |
| | _Bengkulu | | | 0.525450 | |
| | _Lampung | | | 0.066670 | |
| | _Kepulauan Riau | | | -0.928669 | |
| | Kepulauan Bangka | | | -1.252547 | |
| | _Jakarta | | | -1.140191 | |
| | _Jabar | | | -0.895950 | |
| | _Central Java | | | -0.273265 | |
| | _Yogyakarta | | | -0.169491 | |
| | _Jawa Timur | | | -0.280197 | |
| | _Banten | | | -1.111258 | |
| | _Bali | | | -1.378991 | |
| | _NTB | | | 0.520690 | |
| | _NTT | | | 2.107275 | |
| | _Kalimantan Barat | | | -0.880014 | |
| | _Kalimantan Tengah | | | -1.126520 | |
| | _Kalimantan Selatan | | | -1.198413 | |
| | _Kalimantan Timur | | | -0.947802 | |
| | _Kalimantan Utara | | | -0.902767 | |
| | _Sulawesi Utara | | | -0.587232 | |

| | |
|---|---|
| _Sulawesi Tengah | 0.511750 |
| _Sulawesi Selatan | -0.208216 |
| _Sulawesi Tenggara | 0.192669 |
| _Gorontalo | 1.093202 |
| _Sulawesi Barat | -0.145234 |
| _Maluku | 1.574587 |
| _Maluku Utara | -1.075754 |
| _Papua Barat | 4.390388 |
| _Papua | 4.968884 |

Source: Processed data, 2022.

From Table 3 above, we can see that the probability values obtained for the KUR variable are 0.239, the UM variable is 0.000, and the investment variable is 0.572. From this, we can conclude that only variable UM has a significant impact on poverty reduction.

**Classic assumption test**
The classical assumption test was also conducted and the results are presented as follows:

**Table 4**
*Autocorrelation Test Results*

| | | | |
|---|---|---|---|
| MSE root | 0.202268 | R-squared | 0.980665 |
| Mean dependent var | 1.959657 | Adjusted R-squared | 0.976496 |
| SD dependent var | 1.458198 | SE of regression | 0.223555 |
| Akaike info criterion | 0.004296 | Sum squared resid | 8.346098 |
| Schwarz criterion | 0.606112 | Likelihood logs | 36.56178 |
| Hannan-Quinn Criter. | 0.247742 | F-statistics | 235.2774 |
| Durbin-Watson stat | 1.360559 | Prob(F-statistic) | 0.000000 |

Table 4 shows that the Durbin-Watson statistic for FEM was 1.360559 and this means there is no autocorrelation because the value is between -2 and +2.

**Table 5**
*Multicollinearity Test Results*

| Variable | Called | Tolerance | VIF |
|---|---|---|---|
| R2 fixed effect | $R^2$ | 0.981 | 1,089 |
| KUR | $R^2_1$ | 0.978 | 1,049 |
| Minimum wage | $R^2_2$ | 0.918 | 1,006 |
| Investment | $R^2_3$ | 0.978 | 1,128 |

The multicollinearity test can be said to have no multicollinearity because the VIF value < 10, namely the KUR variable obtained by 1,049, the UM variable obtained by 1,006, and the investment variable obtained by 1,128. Therefore, we can conclude that the data in this study did not show multicollinearity because the VIF value was less than 10. Therefore, we can conclude that the model did not show symptoms of multicollinearity.

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**T-Statistic test**

The t-test was used to determine the partial influence of each of the variables including KUR, UM, and investment on poverty, and the results are presented as follows:

**Table 6**
*T-Statistics Test Results*

| Variable X | coef. | Std. Error | t-Stat | Prob |
|---|---|---|---|---|
| Constant | 10,928 | 1991 | 5.492 | 0.000 |
| KUR | -0.025 | 0.021 | -1.181 | 0.239 |
| UM | -0.604 | 0.128 | -4.705 | 0.000 |
| Investment | 0.020 | 0.036 | 0.565 | 0.572 |

**The Effect of KUR on Poverty**

The number of observations was 204 with a variable number of 4 (free and bound) and an alpha of 5%. Moreover, the t-table was obtained through df = n – k and $\alpha/2$ such that df= 204-4 = 200 and 0.05/2 = 0.025. The result from Table 6 showed that the t-count value for this relationship is 1,181<1,971 with a probability value of 0.239 and this means KUR does not have a significant influence on poverty alleviation. The beta coefficient value for KUR was also found to be 0.025 to show that $X_1$ only explains 0.025 of Y and this can be interpreted that an increase of one unit in $X_1$ causes a 0.025% increase in Y while other factors are considered constant. Furthermore, the coefficient value of (-0.025) means KUR has a negative influence on poverty.

**The Effect of Minimum Wage on Poverty**

Table 6 shows that the t-count value for this relationship is 4.705>1.971 with a probability value of 0.000 and this indicates UM has a significant influence on poverty. Moreover, the beta coefficient value for UM variable was recorded to be 0.603 to show that $X_2$ explains 0.603 of Y and this means an increase in one unit of $X_2$ cause Y to increase by 0.603% while other factors are held constant. It is also important to note that the coefficient value of (-0.603) means UM has a negative influence on poverty.

**The Effect of Investment on Poverty**

Table 6 shows that the t-count value for this relationship is 0.565<1.971 with a probability value of 0.000 and this indicates investment does not have a significant influence on poverty. Moreover, the beta coefficient value for UM variable was recorded to be 0.020 to show that $X_3$ explains 0.020 of Y and this means an increase in one unit of $X_2$ cause Y to increase by 0.020% while other factors are held constant. It is also important to note that the coefficient value of (+0.020) means the investment hurts poverty

**F Statistic Test**

The F-statistic test was used to determine the simultaneous or combined influence of KUR, UM, and investment on reducing poverty from 2016 to 2021.

**Table 7**

*F-Test Results*

Effects Specification

Cross-section fixed (dummy variables)

| MSE root | 0.202268 | R-squared | 0.980665 |
|---|---|---|---|
| Mean dependent var | 1.959657 | Adjusted R-squared | 0.976496 |
| SD dependent var | 1.458198 | SE of regression | 0.223555 |
| Durbin-Watson stat | 1.360559 | Prob(F-statistic) | 0.000000 |

The table shows that the F-test value is 235,277 <2.42 with a probability value of 0.0000. This means KUR, UM, and Investment have a significant combined or simultaneous influence on reducing poverty levels in Indonesia between 2016 and 2021.

## Discussion

KUR distributed in 2016 reached Rp 94.4 trillion and is observed to have increased to Rp 244.87 trillion in 2021. Cooperatives and SMEs (Kementerian Koperasi UKM) was reported to have appointed 7 banks to participate as distributors of KUR in 2016 and the number was discovered to have increased to 41 in 2021. But unfortunately, the success of implementing KUR distribution is not commensurate with its success in reducing poverty in Indonesia. The results of this study stated that the KUR did not have a significant influence on reducing Indonesia's existing poverty rate in the 2016-2021 period. Based on the results of the analysis, it is known that the t-count value was obtained at 1,181<1,971 with a probability value of 0.239. Therefore, it can be concluded that the KUR variable does not have a significant influence on poverty alleviation in Indonesia. This is in line with the opinion of Iztihar (2018) saying that the People's Business Credit (KUR) has a significant negative effect on poverty. This simply means the KUR program is not the appropriate strategy to alleviate poverty because it is not designed for poor households (RTM) as the main targeted recipient. Some of the reasons associated with the inability of this method to reduce poverty include weaknesses in the provision of loan funds as indicated by the inappropriate use of loan funds and unprofessional business management.

The increase in UM was based on local government policies implemented to trigger people's interest in work as well as the increasing needs of the community at the provincial stage. It is expected that a worker can receive wages according to the minimum standard of living to have a decent life and avoid the poverty line. Based on the results of the analysis, it is known that the t-count value obtained was 4.705>1.971 with a probability value of 0.000. Therefore, it can be concluded that the UM variable has a significant influence on poverty in Indonesia. This is in line with the findings of previous studies that UM is considered an instrument to reduce poverty (Bruckmeler & Bruttel,2021) and was further confirmed to be effective (Sotomayor, 2021). The findings of this present study are also similar and this was supported by Sutikno et al. (2019). This means a higher UMP is expected to lead to lower poverty and vice versa (Priseptian & Primandhana, 2022). This shows that UM is a strategy to increase income (Olarte, 2021) and further indicates its ability to reduce the number of poor people by increasing their income. Moreover, a higher UM can assist more people in satisfying their needs better.

Based on the results of the analysis, it is known that the t-count value was obtained at 0.565<1.971 with a probability value of 0.572. Therefore, it can be concluded that investment variables do not have a significant influence on reducing the poverty rate in Indonesia. The investment was found not to have any effect on the reduction of poverty in Indonesia even though it normally leads to the absorption of additional labor (Purnomo & Kusreni, 2019). This is in line with the findings of a previous study that investment has a positive but insignificant influence on poverty (Tamrin, Iskandar, &Effendi, 2022). Another study also showed that it does not have a significant effect on poverty through economic growth (R. Pratama et al., 2017). It is important to note that investment is not only to maximize output but also to determine labor and income distribution, population growth, quality, and technology (Sukirno, 2005)

### Conclusion

The analysis conducted in this study showed that KUR does not have a significant influence on poverty alleviation due to the weaknesses observed in the provision and inappropriate use of loan funds as well as inefficient, unprofessional, and poor business management. Meanwhile, UM has a significant influence on poverty due to its ability to reduce the number of poor people by increasing their income to allow them to satisfy their needs. It was also discovered that investment does not have a significant effect on the poverty rate because it only absorbs additional labor without reducing the number of poor people.

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## Demographic and Socio-economic Characteristics Impact on Fertility in Pakistan

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Fertility is the actual reproductive performance of an individual, a couple which determines the country's population size. Pakistan is the 5th most Populus country in the world with high fertility rate in regional countries. The trustworthy secondary data were taken from National Institute of Population Studies, Pakistan and analyzed. The mean and standard deviation of children ever born (CEB) was estimated 3.2±2.41. Poisson and logistic regression models were applied to study the substantial role of eight socio-economic and demographic variables regarding CEB. Poisson regression illustrated that contraceptive and length of marriage positively correlated with CEB, whereas the women education, age at marriage and wealth index showed an inverse relationship with CEB. The women education i.e., illiterate, primary education, secondary education and higher education is 50%, 13.9%, 20.8% and 15.3% and the corresponding mean CEB are 2.73, 2.48, 2.34, and 2.16, respectively. The logistic regression model demonstrated the negative relation between the odds ratio and women education and age at marriage while the family size and length of the marriage were found to be positively correlated. If the respondent remains married for 10+ years, the odds ratio of having a large family is increased by a factor of 21.352 keeping the effect of other variables kept constant. The fitted parsimonious logistic regression model's correct classification for small family, large family and overall are 82.3%, 83% and 82.7% respectively. The findings, thus, have enormous implications for the Government and Population welfare Departments about policies formulations .

*Keywords:* Poisson and Logistic regression, Children ever born, education

The rapid population growth has become a very critical issue globally and especially in developing nations like Pakistan, India, Bangladesh etc. Pakistan is being struggle with the issue of population growth since its inception. In 1947, the population of Pakistan was 32.5 million and ranked the world's 13th most populous nation (Afzal, 2009; Elahi, 2012). In 2020, the Pakistan was ranked the 5th most Populus country with an estimated population of 215.25 million out of which 61% population in the age of 15-64 years. It indicates that Pakistan has high population growth rate and infant mortality

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rate i.e., 1.9 and 55.7 respectively which are at highest position among all regional countries except Afghanistan. Although, these rates are decreased during the last three years, even then are very high. On the other hand, Pakistan has very limited resources and the increasing population trend is putting a substantial pressure on its resources (Economic Survey, 2020). The total fertility rate in Pakistan with slight decline was 3.6 births per women during 2017-18 which was 3.8 in 2012-13 (NIPS, 2018). Almost similar alarming situation of extraordinary burden over its limited resources was also indicated in the study of population growth (Elahi, 2012). Total fertility rate is closely correlated with population growth rate and considered to be very good predictor of a country's future population pattern (Getis & Fellmann, 2004). Fertility analysis helps to understand about social status and population densities of a country. This information has its significance for the Governments upcoming population and development policies. Sathar and Casterline (1998) mentioned that the Government of Pakistan is trying to limit the population growth via different population welfare programs since 1960, However, the targets may not be achieved yet as desired. Kamal and Pervaiz (2011) Hakim (1994) reported that government of Pakistan failed to achieve the population welfare targets due to different energy crises like electricity, gas etc. as well as noncooperation of the society about small family size. The author also mentioned, there is need to critically review the demographic and socio-economic variable who effect the fertility. The most important is that convincing of the society about small family and implementation of population welfare programs by any means. Afolayan and Afolayan (2009) explored the psycho-social factors influencing the acceptance of family planning methods in young adults. The study revealed that religion, culture, knowledge of reproductive health services, dangers of abortion and accessibility to family planning facilities are some major psycho-social factors influencing family planning. Zakria et al., (2013) analyzed fertility pattern of Pakistan for the period between 1984 and 2007 using the Hadwiger function as well as the Peristera and Kostaki model. The gross reproduction rates (GRR), age specific fertility rate (ASFR) and TFR were also discussed in this study. Nesa and Islam (2009) discussed the four variables i.e., wealth index, women's education, region of residence and place of residence to analyze the fertility pattern of Bangladesh. Muhammad et al., (1999) looked into the married women attitude about contraception. The factors connected to the use of contraceptives were proposed to be included in a parsimonious log-linear model. Contraceptive use was found to be strongly correlated with women's education and family income. Zakria et al., (1999) illustrated the relationship between various socioeconomic and demographic factors and the fertility paradigm. It was categorical mentioned that women education may be considered the most crucial factor in slowing the population growth. Wei et al., (2018) studied the socioeconomic factors that affect desired fertility of rural women in Shaanxi, China. The results of a multi-stage stratified sampling procedure on a sample of 2,516 women revealed that the mean lifetime desired fertility for rural women is approximately 1.71, which is lower than the total fertility rate at the replacement level. The financial cost of having children, age at marriage, and social security benefits have a significantly inverse relationship with desired fertility. Jalil and Zakar (2016) used the binary logistic regression to study the risk factors of low birth weight and analyzed the pregnancy intent, breast feeding, mode of delivery, antenatal care utilization and demographics characteristics i.e., age, education, and type of place of residence. The findings indicated that mother's illiteracy, age, rural place of residence, unintended pregnancy, breastfeeding and utilization of antenatal care are significant risk factors of low birth weight. Khattak (2019) discussed the variations in fertility preferences using time series data by ARDL model. It was found

that fertility is positively associated with infant death rate and participation of female in labor force while it is inversely related with real income, unemployment, inflation, and GDP growth rate. Nahar et al., (2019) analyzed the determinants of fertility in Bangladesh by using cumulative fertility approach. It was strongminded that being Muslim, age at first birth, illiteracy, no access to mass media, use of contraceptives are associated with children ever born. Laksono and Wulandari (2021) used the data of 34,353 childbearing age couples to analyze the factors affecting the family size in Indonesia. The binary logistic regression was performed. The findings are consistent with that of the studies (Zakria et al., 1999). Keeping in view the significance of population issues, specifically the fertility sphere, the Pakistan children ever born secondary data along with other socioeconomic and demographic factors were analyzed using the passion regression and logistic regression and examined the impact of important variables towards family size determination.

## Method

### Data Description

The most authentic and reliable source of population data, Pakistan Demographic and Health Survey (PDHS), published by the National Institute of Population Studies (NIPS), Islamabad were taken and analyzed (NIPS, 2018). The updated data included 3334 ever been married women along with eight key socio-economic and demographic variables. According to the objectives of the study and nature of the data, the two most appropriate statistical models i.e., Logistic and Poisson regression models have been applied. Zhang (2011) provided an illustration of the Poisson regression model in the following mathematical form:

$$\mu_i = \exp\left(a + X_{1i}b_1 + X_{2i}b_2 + \cdots + X_{ki}b_k\right)$$

Where $\mu_i$ represents the distribution's mean, $a$ is a constant, and b denotes the group's variance from the reference category's mean. The relationship is nonlinear among explanatory variables and the mean number of children ($\mu_i$). The Children ever born (CEB) is regarded as the response variable in Poisson regression analysis.

Similarly, Agresti (1996) described the following general mathematical form of logistic regression model:

$$\log\left(\frac{p}{1-p}\right) = logit(p) = \alpha + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots\ldots\ldots + \beta_p X_p$$

The total number of children born per family are divided into two groups to make the response binary i.e., small families ($\leq 2$ Children) and large families (2+ children). The remaining eight variables i.e., age at marriage, length of marriage, education of women, wealth index, employment status, use of contraception, region, and place of residence are regarded as explanatory variables. The logic behind to use the logistic regression is to predict the correct classification % regarding family size preference of the respondents.

## Results and Discussion

**Table 1**
*Summary Statistics of Total Number of Children Ever Born*

| Total No. of Women | Mean CEB | S.D. | Mode | Median | $X_{(1)}$ | $X_{(n)}$ |
|---|---|---|---|---|---|---|
| 3334 | 3.20 | 2.41 | 2 | 3 | 0 | 13 |

Table 1 summarized the basic statistics of total number of children ever born. There are 3334 women in total, with a maximum of 13 CEB and 0 minimum, while most of the women have two children, the mean and median numbers of CEB are 3.20 and 3, respectively. The average dispersion among all cases is 2.41.

**Table 2**
*Estimates of Poisson Regression Model and Test Statistics*

| Categorized Variables | | Women % | Mean CEB | B | Wald Chi-Square | d.f | P-value | Exp(B) |
|---|---|---|---|---|---|---|---|---|
| Intercept | | - | - | 0.602 | 221.998 | 1 | 0.000 | 1.826 |
| **Age at marriage** | | | | | 40.456 | 3 | 0.000 | - |
| < 20 | | 56.8% | 2.85 | Ref. | | | | 1 |
| 20 – 24 | $(AM_2)$ | 31.3% | 2.56 | -0.106 | 20.713 | 1 | 0.000 | 0.899 |
| 25 – 29 | $(AM_3)$ | 9.9% | 2.38 | -0.178 | 18.214 | 1 | 0.000 | 0.837 |
| 30+ | $(AM_4)$ | 2.0% | 1.98 | -0.363 | 13.156 | 1 | 0.000 | 0.695 |
| **Marriage Duration** | | | | | 1700.956 | 1 | 0.000 | - |
| <10 | | 49.0% | 1.49 | Ref. | | | | 1 |
| 10+ | $(MD_2)$ | 51.0% | 3.94 | 0.973 | 1700.956 | 1 | 0.000 | 2.646 |
| **Women Education** | | | | | 43.140 | 3 | 0.000 | - |
| Illiterate | | 50.0% | 2.73 | Ref. | | | | 1 |
| Primary | $(WE_2)$ | 13.9% | 2.48 | -0.095 | 9.929 | 1 | 0.002 | 0.909 |
| Secondary | $(WE_3)$ | 20.8% | 2.34 | -0.151 | 23.814 | 1 | 0.000 | 0.860 |
| Higher | $(WE_4)$ | 15.3% | 2.16 | -0.233 | 34.175 | 1 | 0.000 | 0.792 |
| **Wealth Index** | | | | | 23.987 | 2 | 0.000 | - |
| Low | | 40.8% | 2.61 | Ref. | | | | 1 |
| Medium | $(WI_2)$ | 19.3% | 2.40 | -0.084 | 9.144 | 1 | 0.002 | 0.919 |
| High | $(WI_3)$ | 39.9% | 2.26 | -0.146 | 23.223 | 1 | 0.000 | 0.864 |
| **Work Status** | | | | | 0.000 | 1 | 0.986 | - |
| Not Working | | 87.5% | 2.42 | Ref. | | | | 1 |
| Working | $(WS)$ | 12.5% | 2.42 | -0.001 | 0.000 | 1 | 0.986 | 0.999 |
| **Contraceptive** | | | | | 167.922 | 1 | 0.000 | - |
| Non-User | | 63.5% | 2.12 | Ref. | | | | 1 |
| User | $(C_U)$ | 36.5% | 2.77 | 0.268 | 167.922 | 1 | 0.000 | 1.308 |
| **Region** | | | | | 16.655 | 7 | 0.020 | - |
| Punjab | | 22.2% | 2.38 | Ref. | | | | 1 |
| Sindh | $(R_S)$ | 21.9% | 2.33 | -0.020 | 0.417 | 1 | 0.518 | 0.980 |
| KPK | $(R_K)$ | 14.1% | 2.52 | 0.058 | 3.020 | 1 | 0.082 | 1.060 |
| Balochistan | $(R_B)$ | 14.4% | 2.59 | 0.087 | 6.627 | 1 | 0.010 | 1.091 |
| GB | $(R_G)$ | 5.7% | 2.33 | -0.019 | 0.179 | 1 | 0.673 | 0.981 |
| ICT | $(R_I)$ | 6.2% | 2.31 | -0.029 | 0.370 | 1 | 0.543 | 0.972 |
| AJK | $(R_A)$ | 8.9% | 2.39 | 0.005 | 0.016 | 1 | 0.898 | 1.005 |
| FATA | $(R_F)$ | 6.5% | 2.53 | 0.061 | 1.938 | 1 | 0.164 | 1.063 |
| **Place of Residence** | | | | | 0.031 | 1 | 0.861 | - |
| Rural | | 49.8% | 2.42 | Ref. | | | | 1 |
| Urban | $(PR_U)$ | 50.2% | 2.41 | 0.004 | 0.031 | 1 | 0.861 | 1.004 |

Ref: Reference Category

# IMPACT ON FERTILITY IN PAKISTAN

Tables 2 revealed the parameter estimates and test statistics at each level of explanatory variable using the Poisson regression. Most of the variables are categorized into two categories while the wealth index into three categories. The remaining variables i.e., women's education, region and age at marriage each one is categorized into four categories. The average CEB to women aged below 20 was 2.85. The parameter estimate's negative sign illustrates an inverse relationship between mean CEB and age at marriage whereas the relationship between marriage duration and mean CEB is positive. Pakistan's overall literacy rate is around 59 percent while the literate women percentage is only 47. It is an indication towards challenging circumstances for Pakistan. The women education i.e., illiterate, primary education, secondary education and higher education is 50%, 13.9%, 20.8% and 15.3% and the corresponding mean CEB are 2.73, 2.48, 2.34, and 2.16, respectively. It supports that mean CEB and education have an inverse relationship. There is also a negative relationship between wealth index and mean CEB. Additionally, the results show that only 12.5% of respondents are working whereas a major % of the respondents is not working. Surprisingly, the mean CEB of both groups are exactly same. Similarly, the contraceptive user has also shown an intriguing pattern. The contraceptive users have a higher mean CEB than non-users. It could be because the respondents typically start using contraceptives after having the desired number of children. It shows that contraceptive methods are used to prevent unwanted pregnancies or for spacing between births only rather than to reduce the size of the family. Similarly, the women % in different areas of the region as well as the place of residence are different, but the mean CEB are approximately same, it again supports the mentality of large family size preference. To investigate the impact of various socioeconomic variables on the mean number of CEB, the Poisson regression model was fitted. Only two variables work status and place of residence were found to be non-significant in explaining Pakistan's fertility pattern. The parameter estimates with P-values are given in Table 2, and the parsimonious Poisson regression model is as follows

$$\mu_i = \exp(0.602 - 0.106AM_2 - 0.178AM_3 - 0.363AM_4 + 0.973MD_2 - 0.095WE_2 \\ - 0.151WE_3 - 0.233WE_4 - 0.084WI_2 - 0.146WI_3 + 0.268C_U \\ + 0.087R_B)$$

The relative rate of having more children is 0.899, 0.837 and 0.695 times higher for women who got marry at ages 20-24, 25-29 and 30+ respectively as compared to the reference category and keeping the effect of other variables kept constant. The outcomes are in line with the research findings (Hakim, 1994; Hakim, 1999; Kamal & Pervaiz, 2011; Khraif, 2001; Maitra, 2004; Weerasinghe & Paar, 2002). Since the marriage duration mean CEB are positively. The odds having more children is 2.646 times more than the reference group w.r.t. the length of the marriage. It should not come as a big surprise that fertility and marriage length have a strong positive relationship. Other polygamous Muslim nations like Bangladesh, the United Arab Emirate (UAE), Kingdom of Saudi Arabia and other Muslim countries illustrate similar fertility pattern. The Muslim clergy encourages marital couples to maintain long-term relationships for more children. The outcomes are in line with the studies (Atella & Rosati, 2000; Hashmi & Zafar, 1997; Khraif, 2001). The women with primary, secondary and higher education have relative childbearing rates i.e., 0.909, 0.860, and 0.792 times higher than the illiterate women. The mean CEB and the wealth index are negatively correlated and have a relative rate of having more children i.e., 0.919 and 0.864 times higher than that of the low-income women. The reason behind this belief among low-income couples that children are assumed to be an asset and a comfort during difficult times. The findings are

in line with the studies (Akpa & Ikpotokin, 2012; Hakim, 1999; Kamal & Pervaiz, 2011; Nesa & Islam, 2009; Weerasinghe & Paar, 2002). As far as the contraceptive user respondent, they have 1.308 times higher relative rate of more children than non-users. It indicates that, in Pakistan, contraceptive methods are used only after achieving the desired family size, not to reduce the family size. Furthermore, the religious beliefs discourage the contraceptive use to reduce the family size. The findings show that women from Balochistan and KPK are more likely to have multiple pregnancies than Sindhi, Punjabi, and other women. The outcomes are almost identical to those of the study (Hakim, 1994). The federal and provincial governments may not only attempt to reduce population growth rate, but also support and encourage the idea of small family norms. Consequently, to reduce the undue extra population pressure on limited resources.

**Table 3**

*Parameter Estimates of Logistic Regression and Their Test Statistics*

| Categorized Variables | | Percentage of Women | | B | Wald Chi-Square | d.f | P-value | Exp(B) |
|---|---|---|---|---|---|---|---|---|
| | | Small Family Size (≤2) | Large Family Size (>2) | | | | | |
| Intercept | | - | - | -0.995 | 43.483 | 1 | 0.000 | 0.370 |
| **Age at marriage** | | | | | 16.217 | 3 | 0.001 | - |
| <20 | | 20.5% | 36.3% | Ref. | - | - | - | 1 |
| 20 – 24 | (AM$_2$) | 16.1% | 15.2% | -0.300 | 7.179 | 1 | 0.007 | 0.741 |
| 25 – 29 | (AM$_3$) | 6.2% | 3.7% | -0.390 | 5.017 | 1 | 0.025 | 0.677 |
| 30+ | (AM$_4$) | 1.5% | 0.4% | -1.153 | 9.234 | 1 | 0.002 | 0.316 |
| **Marriage Duration** | | | | | 912.226 | 1 | 0.000 | - |
| <10 | | 37.9% | 11.2% | Ref. | - | - | - | 1 |
| 10+ | (MD$_2$) | 6.4% | 44.5% | 3.061 | 912.226 | 1 | 0.000 | 21.352 |
| **Women Education** | | | | | 26.336 | 3 | 0.000 | - |
| Illiterate | | 18.4% | 31.6% | Ref. | - | - | - | 1 |
| Primary | (WE$_2$) | 5.4% | 8.5% | -0.126 | 0.641 | 1 | 0.423 | 0.881 |
| Secondary | (WE$_3$) | 10.9% | 9.9% | -0.451 | 9.426 | 1 | 0.002 | 0.637 |
| Higher | (WE$_4$) | 9.6% | 5.7% | -0.876 | 24.470 | 1 | 0.000 | 0.416 |
| **Wealth Index** | | | | | 6.644 | 2 | 0.036 | - |
| Low | | 15.7% | 25.1% | Ref. | - | - | - | 1 |
| Medium | (WI$_2$) | 8.0% | 11.2% | -0.178 | 1.526 | 1 | 0.217 | 0.837 |
| High | (WI$_3$) | 20.5% | 19.4% | -0.394 | 6.630 | 1 | 0.010 | 0.674 |
| **Work Status** | | | | | 0.273 | 1 | 0.601 | - |
| Not Working | | 39.5% | 48.0% | Ref. | - | - | - | 1 |
| Working | (WS) | 4.8% | 7.7% | 0.081 | 0.273 | 1 | 0.601 | 1.084 |
| **Contraceptive** | | | | | 187.927 | 1 | 0.000 | - |
| Non-User | | 35.0% | 28.6% | Ref. | - | - | - | 1 |
| User | (C$_U$) | 9.3% | 27.1% | 1.540 | 187.927 | 1 | 0.000 | 4.663 |
| **Region** | | | | | 12.351 | 7 | 0.090 | - |
| Punjab | | 9.5% | 12.7% | Ref. | - | - | - | 1 |
| Sindh | (R$_S$) | 11.2% | 10.7% | -0.388 | 6.653 | 1 | 0.010 | 0.679 |
| KPK | (R$_K$) | 5.9% | 8.2% | 0.055 | 0.105 | 1 | 0.746 | 1.056 |
| Balochistan | (R$_B$) | 5.8% | 8.6% | -0.041 | 0.055 | 1 | 0.814 | 0.960 |
| GB | (R$_G$) | 2.5% | 3.3% | -0.319 | 1.794 | 1 | 0.180 | 0.727 |
| ICT | (R$_I$) | 3.0% | 3.3% | -0.194 | 0.760 | 1 | 0.383 | 0.823 |
| AJK | (R$_A$) | 4.0% | 5.0% | -0.042 | 0.046 | 1 | 0.830 | 0.958 |
| FATA | (R$_F$) | 2.6% | 3.9% | 0.076 | 0.118 | 1 | 0.731 | 1.079 |
| **Place of Residence** | | | | | 0.030 | 1 | 0.863 | - |
| Rural | | 23.5% | 26.7% | Ref. | - | - | - | 1 |
| Urban | (PR$_U$) | 20.8% | 29.0% | 0.020 | 0.030 | 1 | 0.863 | 1.020 |

Ref: Reference Category

# IMPACT ON FERTILITY IN PAKISTAN

Table 3 displayed parameter estimates and test statistics at each level of explanatory variable using the Logistic regression. The acronyms and categorization of each variable is the same as that of Table 2. The analysis indicated that there is negative correlation between the age at marriage and family size. The percentage frequency distribution of a large family size is 36.3%, 15.2%, 3.7% and 0.4% w.r.t to the age at marriage i.e., <20, 20-24, 25-29 and 30+ respectively. There is approximately 44.5% women who remain married for 10+ years have a large family while only 11.2% of women who remain married <10 years have small family. It established the positive correlation between the size of the family and the length of the marriage. The analyses illustrated that the women's educational attainment regulates the family size. Lesser the educational attainments, greater the family size preferences and vice versa. The large family size preferences % are 31.6%, 8.5%, 9.9% and 5.7% w.r.t. the illiterate, primary, secondary and higher respectively. On the other hand, with the increase of wealth, the % about larger family decreases slightly from 25.1% to 19.4%. There is only 7.7% working women preferred large family. Contrary, the 48% housewives preferred the large family. The results of contraceptive user respondents are very unexpected. Only 9.3% contraceptive users have small family while 27.1% have large family. As far as provincial perspective, Punjab, Sindh, KPK and Balochistan preferences % about large family 12.7%, 10.7%, 8.2% and 8.6%. The respondent's categorization about small or large family may be predicted based on socio-economic and demographic variables analysis using the logistic regression model. The four variables i.e., region, place of residence, wealth index and work status have non-significant impact on fertility while the other four variables i.e., marriage duration, age at marriage, women education and contraceptive have significant impact on fertility. The parsimonious logistic regression model is as under:

$$logit\left(\frac{p}{1-p}\right) = -0.995 - 0.300AM_2 - 0.390AM_3 - 1.153AM_4 + 3.061MD_2$$
$$- 0.451WE_3 - 0.876WE_4 - 0.394WI_3 + 1.540C_U - 0.388R_s$$

Table 3 revealed that there is inverse relationship between family size and age at marriage. In comparison to the reference category, the odds ratio rises by a factor of 0.741, 0.677 and 0.316 for respondents' preference about large family w.r.t got marry at age 20–24, 25–29 and 30+ years respectively holding the effects of other variables kept constant. The findings are in line with the studies (Hasan & Sabiruzzaman; 2008; Rahman et al., 2008)). Similarly, If the respondent remains married for 10+ years the odds ratio of having a large family is increased by a factor of 21.352 keeping the effect of other variables kept constant. It indicates that the likelihood of having a large family rises with long marriages. These findings are consistent with the studies (Atella & Rosati, 2000; Hashmi & Zafar, 1997; Khraif, 2001). Women Education and CEB are negatively correlated with each other. The findings indicate that the lower the education level, higher the fertility. The findings demonstrate that women with primary, secondary, and higher education are less likely than illiterate women to have large families. Hasan and Sabiruzzaman (2008) and Rahman et al., (2008) reported almost similar findings. The study also depicted that the contraceptive and fertility are positively correlated. The odds ratio indicated that the contraceptive users are 4.663 times more likely to have large families than non-users. It seems that contraceptive is not used to reduce the family but rather used only after a desired number of children or family completion. In other words, the contraception may be considered to space out pregnancies rather than to prevent them. The findings are in agreement with the studies (Butt & Jamal, 1993; Hashmi &

Zafar, 1997; Kamal & Pervaiz, 2011). Furthermore, the religious convictions also discourage the contraceptive uses.

**Table 4**
*Comparison of Null and Parsimonious Logistic Regression Model*

| Observed | | Predicted (Null) Family Size | | Predicted (Logistic Model) Family Size | | Overall Correct (%) |
|---|---|---|---|---|---|---|
| | | Small (≤ 2) | Large (>2) | Small (≤ 2) | Large (>2) | |
| Family Size | Small (≤ 2) | 0 | 1477 | 1215 | 262 | 82.3% |
| | Large (>2) | 0 | 1857 (100 %) | 316 | 1541 | 83.0% |
| Overall Correct (%) | | **55.7 %** | | **82.7 %** | | |

Table 4 revealed that the null model overall correctly classified only 55.7% cases. It indicates that the null model has no practical significance in classifying the case. There is total 1477 women with small family and 1857 women with large family. The parsimonious logistic regression model correctly classified the small family and large family by 82.3% and 83% respectively. There are only 17.7% and 17% cases are misclassified. The overall correct classification by logistic model is 82.7% and may be considered to have a better fit to the data than the null model. Peng et al., (2002) demonstrated the model's strength and goodness of fit up to 27% correct prediction. In addition, Nagelkerke $R^2$ was also estimated i.e., 56.4% and concluded that the fitted model is parsimonious. Islam and Rahman (2010) also illustrated the significance of Nagelkerke $R^2$ for the goodness of fit of logistic regression model.

### Conclusion and Recommendations

Poisson and logistic regression models were applied to study the substantial role of eight socio-economic and demographic variables regarding the children ever born and family size preferences. The most authentic and reliable secondary data were taken from Pakistan Demographic and Health Survey 2016-17 (NIPS, 2018) and analyzed. Poisson regression model illustrated that Age at marriage, wealth index, marriage duration, women's education and contraceptive are statistically significant in context to the CEB. Furthermore, the contraceptive and length of marriage were found to be positively correlated with CEB. On the other hand, the women education, age at marriage and wealth index showed an inverse relationship with children ever born. It may be assumed that contraceptives had been used to postpone the pregnancy or after the completion of desired family size, not to reduce the family size. The logistic regression model demonstrated that the factors age at marriage, length of marriage, women education and contraceptive disclosed significant impact on family size preference. In addition, it was observed the negative relation between the odds ratio and women education and age at marriage. However, family size and length of the marriage were found to be positively correlated. Consequently, the fitted parsimonious logistic regression model's correct classification for small family, large family and overall are 82.3%, 83% and 82.7% respectively. The findings, thus, have enormous implications for the Government and Population welfare Departments about policies formulations. The women education may

be encouraged to upsurge the age at marriage and lessening the childbearing years to limit the family size.

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