

WOMEN'S EDUCATION IN AFGHANISTAN: ACTIVIST, TALIBAN, AND PUBLIC VIEWS

A Thesis

**Submitted to the Master's Study Program of Political Science at the Faculty of
Social Sciences in partial fulfillment of the requirements for the degree of**

Master of Arts (M.A.)



by:

Abdul Saboor Hamed

Student ID: 02222120008

INDONESIAN INTERNATIONAL ISLAMIC UNIVERSITY

DEPOK

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ABSTRACT

Name : Abdul Saboor Hamed
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This study investigates the intricate landscape of women's education in Afghanistan through the perspectives of diverse groups, including activists, Taliban officials, and the general public. The study aims to explore the attitudes and sentiments surrounding women's education by combining content and sentiment analysis. Extensive data collection encompassed Twitter posts from Afghan activists, the Taliban, and the public. The study's findings unveil various opinions and emotions among the various groups examined. Notable champions for women's education, regardless of sex, emerge, demonstrating passionate advocacy and working towards expanding educational opportunities for all. The public similarly exhibits significant levels of support, albeit slightly less pronounced. Their collective voice affirms the importance of women's education and the need for progress in this realm. Conversely, the Taliban demonstrates limited enthusiasm for girls' education, revealing a deep ideological divide. This understanding sheds light on the challenges in promoting educational equity and diversity within Afghanistan. The study underscores the pivotal role of activists in advocating for women's education, shaping the discourse, and driving transformative change. It also highlights the importance of dismantling societal barriers and advocating for legal reforms to ensure accessibility to education for women in Afghanistan. The insights generated by this study hold practical implications for policymakers, educators, and organizations dedicated to advancing women's education and achieving equality in Afghanistan. With these findings, policymakers and activists can better prioritize women's education, design more effective initiatives, and allocate resources accordingly. This research contributes to the ongoing conversation on women's education in Afghanistan by providing a deeper understanding of the perspectives and sentiments expressed by various groups. It emphasizes the need for sustained collaboration and coordinated efforts to dismantle barriers, challenge established norms, and create an educational system that empowers women, giving them a voice and opening doors to a brighter future.

Keywords: *Women, Girls, Education, University, School, Twitter*

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CHAPTER I

INTRODUCTION

1.1 Background

Millions of women, especially those without equal educational experiences, skills, or qualifications, women of specific classes and social groups, have long been doomed to inferior lives in terms of their capacity to grow personally, their choice of employment, their standing as citizens, and their ability to influence leadership and decisions at the national level that have an impact on their local lives (Weiner, 1986).

Women are practically prevented from receiving education around the globe, especially in countries with patriarchal and conservative government forms. Afghanistan is one of those countries where women have suffered for decades. Today, women are prevented from educating themselves, or the government has imposed restrictions on their education. This restriction has a substantial negative impact on women's daily activities. It limits their access to public gatherings, travel, study, and other activities.

According to the studies by Scott S. Smith (2020), the Taliban not only have issues with women's education but also do not allow people to use technologies, such as TV, satellite dishes, or advanced phones like iPhones or phones that record video (Smith, 2020). Also, the Taliban have tried to disconnect the internet in Afghanistan in recent years, and they have succeeded in some areas under their control (Drissel, 2015).

Studies also show that educated women are more likely to have more opportunities, and "better-educated women that do work are more likely to work in non-farm activities" (Anderson, Reynolds, Biscaye, Patwardhan, & Schmidt, 2021, p. 200). Education for women has been cited as an essential factor in the development of feminism by several authors. Women's higher education

institutions sprung up simultaneously with the first waves of feminism in the United States (Plutzer, 1993, p. 149).

The denial of education for women can have severe consequences for society and individuals (Orfan, 2021). Taliban restrictions on women's education in Afghanistan have led to high illiteracy rates among Afghan women, which has limited their participation in society (Mashwani, 2017). The Taliban's return has raised fears that women's rights, including access to education, will be further diminished (Women, 2022). Despite Taliban efforts to limit women's education, evidence shows that there is opposition among Afghans to this action.

A survey from 2019, according to Tabasum Akseer and John Rieger, showed that 87 percent believed women should have equal access to education (Akseer & Rieger, 2019). Hodes' 2019 study found that Afghan women who had received an education were more supportive of gender equality and human rights. This study is necessary because it sheds light on the different views of groups, such as activists, the Taliban, and the public. And it gives insight into Afghan society's attitudes toward women's education. Further, the researcher examines the tones of the tweets posted by three different groups of people, both male and female activists, the Taliban, and the public. In the remaining chapters of this study, the researcher will address all three groups (activists, the Taliban, and the public).

The goal is to analyze the tweets and gauge their level of support for women's education. The process is done through sentiment analysis. Sentiment analysis is determining whether a piece of text is positive, negative, or neutral based on the information contained within it using tools from Natural Language Processing and text analysis (Faizi, 2023). Descriptive data include a chi-squared test of independence and a comparison of sentiment ratings across sexes and those between activists, Taliban officials, and the public. The study wraps up with a review of the tweets' most popular phrases and terms.

This study uses quantitative content analysis to analyze the tweets and test the hypothesis and sentiment analysis to assess the tone of each tweet related to women's education (Evans & Clark, 2015; Kitzie & Ghosh, 2016). Twitter operates as a network in which individuals rapidly disseminate and exchange thoughts;

individuals can share their thoughts and feelings openly through the use of various forms of media, including text, photographs, videos, etc. (Karamouzas, Mademlis, & Pitas, 2022, p. 1).

Thus, these mediums can track public opinion on a selected topic. Public opinion “represents the views, desires, and wants of the majority of a population concerning a certain issue, whether political, commercial, social, or other” (El Barachi, AlKhatib, Mathew, & Oroumchian, 2021, p. 1). Further, the researcher uses the Python programming language to analyze the tweets. Python is quickly becoming one of the most widely used for computational science.

It is attractive for algorithm creation and exploratory data analysis because of its high-level interactive character and growing ecosystem of scientific libraries (Pedregosa, 2011, p. 2826). Also, Python is one of the most efficient and compatible programming languages for analyzing data and has thousands of libraries; also, the researcher uses several libraries, such as Pandas and NumPy, and scikit-learn. These libraries allow us to understand and analyze our data based on the study’s requirements.

A comprehensive literature analysis addresses the restriction on Afghan women regarding education, covers the historical and cultural backdrop, the conflict that impacts women’s lives, and the role that gender and ethnicity play in determining views regarding women’s educational opportunities. The following section of the study talks about the research problem, objective, and significance of the study. The researcher is committed to analyzing these results' ramifications and suggesting further research and policy changes to advance gender equality and women’s rights in Afghanistan.

1.2 Research Problem

Despite some progress made in recent years, Afghan women remain a significant distance from a standard education, with barriers that hinder them from going to school and achieving academically. Understanding and addressing these barriers is crucial for advancing women’s education in Afghanistan. One aspect that deserves

attention is the differing perspectives among activists, the Taliban, and the public regarding women's education.

Male and female activists are pivotal in advocating for equal educational opportunities for Afghan women. They recognize the transformative power of education in empowering women, improving their socioeconomic prospects, and promoting gender equality. However, it is essential to acknowledge that male and female activists may experience and perceive these challenges differently due to societal expectations and gender roles. Exploring these nuances can provide valuable insights into both male and female activists' specific obstacles and their strategies to overcome them. To summarize the research problem, I compared activists, the Taliban, and public tweets related to women's education, and the aim is to find which group has greater support for women's education in Afghanistan. I seek to understand the difficulty of social, cultural, poverty, conflict, and political factors that influence the public's views regarding women's access to education, focusing on the effect of gender norms.

1.3 Research Question

The aim of this study is to investigate the difference in views between activists, the Taliban, and the public, as well as how gender affects male and female activists for women's education. The research question to be answered is: "What are the views of activists, the Taliban, and the public regarding women's education in Afghanistan, and how does gender influence activists' views on the topic?" I use Afghan people's tweets to answer this question, and the tweets come from Afghan activists, the Taliban, and the public. It is important to see women's education from different views; it gives us insight into women's education.

There are several reasons why I selected Twitter, including based on the findings of R. Michael Alvarez (2018). Firstly, the over 319 million monthly active users represent a diversity of people and organizations alike, providing scholars with an unusually representative sample population from which they can draw insights into different aspects of human behavior or responses accordingly. Secondly, Twitter's massive flow of daily messages reaching up to an astonishing 500 million allows

researchers' real-time tracking of trends and issues. These vast amounts of information retrieved subsequently enable developments across multiple fields such as economics and public health (Alvarez, 2018). Also, the findings will help readers comprehensively understand women's access to education from three different groups in Afghanistan. According to a report from 2022, the total number of Twitter users was 236,600 (Kemp, 2022).

1.4 Research Objective

Scholars have paid more attention in recent years to issues affecting women, such as education, equality, political participation, and other areas where women typically face challenges. Inequity in education can be traced back to several factors. Still, one of the most frequently cited is that "higher education research has traditionally been framed within a masculine paradigm, often with male participants" (Parson, 2020, p. 515). Conflict harms women's access to education, particularly in countries like Afghanistan, where civil and international wars have plagued for decades.

Earlier, I stated that the study compared three different groups' tweets related to women's education: activists, the Taliban, and the public. Apart from that, I investigated how gender influences the activists' views on women's education. In this study, "gender" is used as a cultural and social norm, not as "sex". The imposition of gender meanings on physically diverse bodies as passive recipients of cultural laws has been criticized by those who believe that the formation of gender involves determinism. Instead of genetics determining one's fate, culture is viewed here (Butler & Judith, 2006). Since gender is apparent, I have examined how gender influences activists' views on women's access to education.

The study contributes to an understanding of the ways in which gender influences the views of the public and activists toward women's education in Afghanistan, considering culture and conflict from social aspects. I believe that by examining these factors, readers can gain a deeper understanding of women's education and the reasons that women are barred from education. The study will create a better understanding of Afghan women's difficulties accessing education.

I support and promote gender equality, women's education, working, expressing their ideas in public, and any other rights given to human beings by nature in Afghanistan.

1.5 Significance Study

The significance of this study lies in its focus on gender as a factor in how people see women's educational opportunities in Afghanistan. An understanding the cultural and societal elements that contribute to gender imbalance in schooling can be gained by analyzing tweets from Afghan people, and this study aims to do just that. As a result, the study will benefit the academic community by providing new insights into this pressing topic and demonstrating the value of social media as a resource for scholars in Afghanistan and beyond.

Furthermore, this study will be one of the first to extensively investigate the difference in perspectives of activists, the Taliban, and Afghan people regarding women's access to education through social media. This study will help improve conditions for female students in Afghanistan by giving them a stronger voice through social media. In doing so, it will shed light on the achievements and challenges faced by Afghan women and inspire future generations of women to pursue education and careers.

The study seeks to shed light on the power of social media to advance gender equality and elevate underrepresented communities' voices. Afghan women's difficulties in gaining access to education can be better understood by studying tweets from Afghans both inside and outside of Afghanistan. These results will provide the foundation for future efforts to advance gender equality in the classroom and beyond. This study acknowledges Afghan women's challenges and aims to illuminate such obstacles to inspire change. By sharing our findings, I want to encourage further discussion about how social media may help advance gender and political equality.

This study holds significant importance as it brings attention to the critical issue of women's education in Afghanistan and the concerning public opinion that tends to hinder their access to education. By employing Twitter as a data collection

tool, this study will contribute to the expanding literature on the gender imbalance in education. The findings are expected to inspire further investigations into the intricate relationship between gender dynamics and social media in Afghanistan and other contexts worldwide. By deepening our understanding of these dynamics, I can effectively address women's challenges in pursuing education and work toward creating more inclusive educational environments.

CHAPTER II

THEORETICAL FRAMEWORK

2.1 Literature Review

This study investigates women's education in Afghanistan from the views of activists, the Taliban, and the public and how gender affects male and female activists' views on women's education. While there has been progress in this area, there are still challenges that women in Afghanistan confront when attempting to enhance their education. The lack of resources, including schools, contributes to these issues, as do issues like poverty and cultural norms, as well as war and violence. Studies reveal that educated women have more opportunities and contribute more to non-farming activities, highlighting the value of education in empowering women and fostering gender equality (Anderson, Reynolds, Biscaye, Patwardhan, & Schmidt, 2021). In exploring activists' perspectives on women's education and their support for gender equality, it is essential to recognize that activism encompasses a range of activities driven by social, political, and personal beliefs. Consumer educators aiming to redefine consumer education approaches can be seen as consumer activists, advocating for the intricate connections between consumers and the marketplace, encompassing political, social, and economic dimensions (McGregor, 2015).

Lyytikäinen's (2013) study examines how gender, class and the civic field influence the complex nature of activist identity. The author, in connection with Russians opposing Vladimir Putin's government, undertook various actions such as protests, demonstrations, and hunger strikes (Lyytikäinen, 2013). According to Lyytikäinen, most activists within this movement espouse democratic ideas, with well-educated parents who hold professions such as teachers, doctors, and scientists, indicating a solid educational background among the activists. This action of activists shows that they not only stand for women's education but also

stand against any inequality that causes harm to individuals. According to Carla Luguetti and Kimberly L. Oliver (2020), the activist approach can help educators, student teachers, and young people become conscious of societal power structures that lead to social inequities (Luguetti & Oliver, 2020).

Lauri Johnson (2004) sheds light on women's education from activists' views. The African American women teachers in Harlem during the 1930s to 1950s were dedicated to providing their students with a high-quality education and were actively engaged in social reform movements, teacher union organizing, and civil rights activities. These activist educators leveraged their influence to drive broader societal change, improve working conditions for teachers, and expand access to higher education. Their efforts had a transformative impact on the lives of African Americans and paved the way for subsequent generations of activists and educators in Harlem (Johnson, 2004).

Rebecca M. (2010) describes how gender influences activists' views regarding women's education. Activists at Lakshmi Ashram had different views on women's education, and their opinions varied. Male activists saw education as a means to advance women's economic standing, to create more and better employment options and greater financial autonomy. They expected women to become more self-reliant through education and contribute significantly to their families and communities. However, the women activists at Lakshmi Ashram regarded education as a means to combat gender inequity and boost women's agency.

Activists knew that education could empower women, allowing them to decide their own futures and be aware of their respective societies (Klenk, 2010). These views shaped male and female campaigners' tactics. Female activists concentrated on changing social norms around women's education to remove impediments to women's education. In contrast, male activists were more focused on the financial aspect of women at Lakshmi Ashram to help them stand on their feet. Female activists faced family and community opposition to women's education. Male activists, seen as better social change leaders, were more accepted by policymakers. Lakshmi Ashram's male and female activists championed

women's education despite obstacles. They thought it empowered women and developed communities. They persistently fought for decent education for women. Further, Barbara J. Bank (2007) discusses "activists seeking sex equity and participants in the emerging discipline of women's studies" (Bank, 2007).

Before I cover the Taliban, activists, and the public, it is important to understand the Taliban, their study places, and their emergence time. The Taliban emerged after the Soviet withdrawal from Afghanistan in 1989. At that time, the country was in turmoil, lacking a central government and grappling with warlords competing for power. Seizing this opportunity, the Taliban, consisting of young Pashtun men who had received religious education in seminaries, presented themselves as a solution for restoring order and stability. Central to the Taliban's ideology is a strict interpretation of Islam. They advocate for the Quran as the ultimate source of law in Afghanistan, and they seek to govern all aspects of life based on Islamic principles. As part of their approach, they have enforced bans on music, television, and other forms of entertainment, while imposing restrictions on women's rights. The roots of the Taliban's rise can be traced back to the religious seminaries, known as madrassas, primarily in Pakistan. These educational institutions were established to teach Islamic law and theology to young Pashtun men. Often hailing from impoverished backgrounds, these students were drawn to the Taliban's message, which promised order and stability amid the prevailing chaos. The emergence of the Taliban was fueled by post-Soviet withdrawal from Afghanistan, the appeal of a strict Islamic ideology, and the influence of religious seminaries in Pakistan.

These places of study were pivotal in shaping the Taliban's ideology, rooted in a strict interpretation of Islam. The education received in these madrassas profoundly influenced the worldview of Taliban members. It serves as a reminder of education's significant impact in shaping Afghanistan's future. While other factors contributed to the Taliban's emergence, such as the aftermath of the Soviet withdrawal, the rise of warlordism, and the absence of a robust central government, the role played by religious seminaries remains a crucial aspect of their development (Noor, Sikand, & eds, 2008).

Further, to understand the views of the Taliban and the public regarding women's education, one must recognize the influence of action resources like knowledge and skills, empowering individuals to shape their lives. Modernization is crucial in fostering political involvement through economic growth, education, and personal independence. Societal values reflect the impact of industrialization and the ongoing conflict between survival-oriented and self-expression values. Self-expression societies prioritize personal fulfillment, active participation, gender equality, tolerance, trust, civil liberties, democracy, and responsive governance (Welzel & Inglehart, 2008).

The Taliban is utilizing various technologies, including mobile phones, social media platforms, satellite imagery, and encrypted communications, to deliver services in the areas under their control. They employ mobile phones for communication, tax collection, and law enforcement while utilizing social media to spread propaganda, recruit fighters, raise funds, and coordinate activities. Satellite imagery aids in mapping and target identification and monitoring the actions of the Afghan government and its allies. Encrypted communications help protect their messages and facilitate coordination. The Taliban's use of technology poses significant challenges for the Afghan government, its partners, and the international community, impacting territorial control, service provision, achieving lasting peace, and necessitating ongoing adaptation to tackle these challenges (Smith, 2020).

Afghanistan is a place where women have been oppressed for decades (Fluri, 2009, p. 260). Thus, one must analyze Afghanistan's women's situation within the larger historical context of Afghanistan, not through the ideologies of "before and after" the Taliban. Only such a view can ensure that women are seen as essential to rebuilding Afghanistan. Ruth Ren (2010) launched a public survey to measure people's opinion regarding women's education by asking, "Women should have equal opportunities like men in education" Over 87 percent of respondents agreed with women's education, and 50 percent "strongly agreed" (Rene, 2010). According to the report, only around 11 percent disagreed, with a higher proportion of women (93 percent) than men (82 percent) supporting equal opportunities in

education. When looking at the views of the Taliban regarding women's education, since 1994, they have disagreed with women's education and work. As Pia Karlsson and Amir Mansory (2008) say, "[...] when the Taliban (students of Islam) entered the arena and installed law and order – at the cost of human rights abuse. In particular, women in the cities were denied work and education opportunities" (Karlsson & Mansory, 2008, p. 3).

Likewise, Saira Inayatullah (2022) interviewed the public by asking questions related to women's education. Inayatullah found that people were concerned about women's education because of the Taliban rule in 1994. The public expressed concerns about women's education as Inayatullah asked participants. They said, "Now, after the Taliban, women's education has reached nearly zero, and it has turned into a dream. We don't know if it's achievable or not" (Inayatullah, 2022, p. 28). While the second participant answered, "Now the Taliban break every single foundation that was built for women's education." The third participant said, "A pre-Taliban Afghanistan was good. I had a comfortable life. Education service was accessible to everyone. Now, the Taliban don't allow girls to go to school."

I argue that the Taliban restrict women's education, insisting on a patriarchal structure. Also, I say that today's Taliban are intensely involved with technology and advanced mobile phones and use social media to expand their views and influence more people around the country. This could be regarding women's education and political participation. Today, the Taliban have no issue with the use of technology in the country. Activists champion empowerment and social change through education, but female activists are more robust in supporting women's education than male activists. The public holds diverse views influenced by education, religion, and cultural background.

2.2 Hypothesis

H1: The Taliban's views regarding women's education will be significantly more restrictive and opposed than those of activists and the public. This hypothesis can be explained theoretically by the Taliban's prior behavior. The Taliban, an Islamic extremist party that ruled Afghanistan from 1996 to 2001, imposed severe Islamic

legislation, including limiting women's education and work opportunities. Women were punished for attending school or working outside the home. Fundamentalist Islam and gender roles underpin the Taliban's attitude. Based on their philosophy and past actions, the Taliban's views on women's education are likely more restrictive and opposed than those of activists and the public. That violence against women during 1996 was a "daily reality throughout the world" and the Taliban "drastically" curtailed women's rights (Skaine, 2002).

H2: Activists are more likely to demonstrate greater support for women's education than the Taliban and the public. Women's education holds enormous significance and is a matter of ongoing contention. It is a robust solution to address numerous issues affecting women's lives. Although steps have been made to promote its expansion, women's education continues to face obstacles stemming from societal customs, entrenched power dynamics, and the failure of governments and nations to take adequate measures (Nussbaum, 2004). To see women's education from the perspective of activists who campaign for women's rights and education will likely see education as a fundamental right for all individuals, regardless of gender. They support the empowerment of women through education and equality.

On the other hand, the Taliban has a history of opposing women's education and viewing it as a threat to traditional gender roles (Telesetskyt, 1998). Members of the public may hold varying views on women's education, depending on factors such as their level of education, religious beliefs, and cultural background. Generally, those who prioritize gender equality and women's rights are more likely to support women's education than those who do not. Hence, it is expected that activists would support women's education more than the Taliban and the public.

H3: Female activists are likely to hold more favorable sentiments toward supporting women's education than male activists. Women's education is generally a top priority for female activists since they better understand the challenges women experience in gaining an education. On the other hand, male campaigners might not place the same value on women's education as their female counterparts. Societal standards and gender roles may still influence men and women's views on

education and women's rights. Gender, according to feminism theory, is a social construction, and gender norms and expectations are internalized via upbringing in a patriarchal society (Lorber, 2001). Therefore, female activists are more inclined to advocate for women's educational opportunities due to their gendered attitudes and ideas.

2.3 Argument

The study revolves around the views of activists, the Taliban, and the public regarding women's education. Activists, driven by feminist theories and ideologies, advocate for women's education as a fundamental right and a pathway to empowerment. They believe education is pivotal in challenging societal norms, breaking free from oppressive systems, and fostering social change. Activists view education as a means for women to shape their communities and contribute to gender equality actively.

On the other hand, the Taliban's theoretical stance on women's education starkly contrasts with that of activists. Rooted in religious fundamentalism and traditional gender roles, the Taliban perceive women's education as threatening their established order. They view education for women as challenging patriarchal structures and seek to maintain oppressive systems by imposing severe limitations on women's access to education. The Taliban reinforce traditional gender norms and restrict women's opportunities for empowerment through education.

In a surprising twist, it has recently been revealed that the Taliban, a fundamentalist group known for their strict and conservative beliefs, have experienced a significant shift in their attitude toward technology. Despite their previous strong opposition, they now embrace the use of mobile phones, television and satellite dishes in their areas of control. This marks a notable departure from their policies in 1994 when these technologies were banned. For the past two decades, they have extensively tried to limit access to television, advanced mobile phones, and the internet.

The newfound acceptance of technology within the Taliban has left many people astonished. Recent studies have uncovered a fascinating finding: The

Taliban use technology more extensively than activists and the public. They are more active on social media platforms, particularly Twitter, than other groups. This unexpected discovery sheds light on a fascinating aspect of the Taliban's evolving strategies and demonstrates their skill in leveraging technology.

The reasons behind this apparent reversal in the Taliban's stance on technology are still a matter of speculation. Some experts suggest that they have recognized the power of modern communication tools for spreading their ideology, recruiting followers, and maintaining control over their territories. Others propose that adopting technology may be a practical response to the rapidly changing world, where access to information and communication has become increasingly interconnected.

Public perspectives vary, influenced by their education, religious beliefs, and cultural backgrounds. Some individuals align with the ideals put forth by activists, recognizing the transformative power of education and the importance of equal opportunities for women. They acknowledge that education is crucial in improving women's lives and advancing gender equality. Others, however, may hold reservations or even oppose women's education due to adherence to societal norms and traditional values. These individuals may subscribe to a theory that reinforces gender roles and inhibits progress in women's education.

The discussion highlights the contrasting views surrounding women's education in this theoretical landscape. Activists, driven by feminist theories, emphasize the importance of education as a tool for emancipation. At the same time, the Taliban's perspective is rooted in religious fundamentalism and the preservation of traditional gender roles. The public exhibits various theoretical perspectives shaped by numerous factors, contributing to the discourse's complexity.

This is essential to consider when examining the support for women's education among activists, the Taliban, and the public. The theoretical perspectives influence each group's actions, beliefs, and strategies. Activists strive to remove barriers and advocate for women's educational access, while the Taliban seeks to maintain their established order by suppressing women's education. The public's theoretical stances are shaped by their unique experiences, education levels,

religious beliefs, and cultural values, which further contribute to the diversity of opinions regarding women's education.

CHAPTER III

RESEARCH RESEARCH METHODOLOGY

This study uses quantitative content analysis along with sentiment analysis. Tweets are the data I collected from three different groups in Afghanistan: activists, the Taliban, and the public (common people). The gathered tweets were subjected to content analysis to identify common themes and trends, while sentiment analysis looked for overarching feelings toward women's education. The findings from this study approach add to the continuing conversation about women's education in Afghanistan and shed light on a complicated topic.

3.1 Data Collection Methods

Data collection took place between Dec. 1, 2022, and March 30, 2023, through an Application Programming Interface (API). This API allows individuals to retrieve up to 3200 maximum rows from a single account (Kitzie & Ghosh, 2016). The study analyzes three different groups of tweets, namely activists, both male and female; Taliban officials (since there are no women in the Taliban's cabinet, the study had to focus on the male side); and last but not least, the public, both male and female, not by gender but in general, even though there is an equal sample of both.

I individually collected the tweets, and there are three different approaches to recognizing the activists to fetch their tweets. First, I joined the Afghan Twitter spaces to identify activists from there. Second, Google allows us to find Afghan activists by typing "Afghan activists". Third, Afghanistan's TV channels have frequently invited activists. These channels have hundreds of followers and views and invite activists daily, e.g., [TOLONews](#), [ArianaNews](#).

For the Taliban officials, there is a single approach, which is [Zabehulah M33](#) and the "Official Twitter Account of the Spokesman of the Islamic Emirate of Afghanistan, Zabihullah Mujahid". This is the official account of the Taliban spokesman, and Zabihullah has followed other officials, providing an easy way to recognize the officials and fetch their tweets.

The same approach has been made with [mobeenkhan1231](#). Mobeen is a famous person on social media. He is an active member of the Taliban, and most of the Taliban have followed him on Twitter. This gives us more ability to access Taliban officials to access to their tweets. The researcher has implemented the same approach related to the public, but this time, on Tolo News and Ariana News “[TOLOnews](#), [ArianaNews](#)”. It allows us to recognize the public from their followers or in the comments section because most people use the Pashtu or Persian (Dari) languages to comment on posts. To analyze the data, I randomly took a sample of 54 accounts for each group, activists, the Taliban, and the public. Notably, the total amount of tweets could vary, depending on which groups were more active on Twitter and tweeting frequently.

3.2 Data Analysis

I tested my hypotheses through content analysis (Evans & Clark, 2015). The technique is outlined here and consists of a set of methods I created for conducting systematic investigations of texts. Twenty years ago, researchers examined unemployment’s mental and emotional effects in a longitudinal study (Mayring, 2004). To check the tone of the tweets related to women’s education, I use sentiment analysis, also known as opinion mining, which refers to the study of how individuals feel about certain things.

Sentiment analysis aims to determine the emotional tone in a text, categorizing it as positive, negative, or neutral. The positive sentiment reflects favorable emotions, such as support, encouragement, or celebrating achievements in women’s education. Negative sentiment expresses unfavorable emotions, such as frustration, anger, or disappointment regarding barriers or discrimination. Neutral sentiment indicates an absence of strong positive or negative emotions, often seen in objective statements or sharing information without personal opinion. Sentiment analysis helps understand how people feel about women's education by identifying the overall tone of their tweets, whether they are positive, negative, or neutral.

The entities can be goods and services, businesses and people, places and things, and ideas and concepts. There is a lot of room for potential issues in this subject. Sentiment analysis encompasses various activities formerly performed under several titles, such as opinion mining, opinion analysis, opinion extraction, subjectivity analysis, affect analysis, emotion analysis, and review mining (Liu, 2015).

Also, the chi-squared test used, which evaluates the consistency between an observed percentage and theoretical predictions, tests for statistical significance between two variables often representing nominal or ordinal levels of measurement (Lewis & Burke, 1949); it is common practice to use cross tabulation (crosstab) as an analysis method to compare the outcomes of one or more variables with those of another.

3.3 Translation

Before I delve into the data cleaning process, it's important to acknowledge an important detail: Most of the tweets I am working with are in Persian (specifically, Dari). To facilitate our analysis, I employ Google Translate as a means of translation. It enables us to convert the tweets into English, thus ensuring greater accuracy in our study. The decision to utilize machine translation through Google Translate was made to streamline the translation process. It allows us to efficiently comprehend the content of the tweets and subsequently perform a comprehensive analysis. By leveraging this technology, I aim to overcome any potential language barriers that could impede our understanding of the data. It's worth mentioning that while machine translation tools like Google Translate have made significant advancements in recent years, they may only sometimes capture the nuanced intricacies of human language perfectly.

Nonetheless, I strive to minimize any potential loss of meaning during the translation process by employing state-of-the-art translation algorithms. By incorporating machine translation, I can ensure that our analysis is conducted on a more diverse and representative dataset, yielding valuable insights into the Persian-speaking Twitter community.

3.4 Data Cleaning

Data cleaning is the procedure of finding wrong information, fixing it by eliminating unnecessary bits, and reentering the right information. It includes eliminating mistakes and verifying information. Cross-checking data is a viable option for fixing this problem. Problems usually disappear after data is checked for accuracy. The obtained dataset is cleaned up before analysis to reduce time and effort. All the information is changed to lowercase, and slang or unnecessary terms are eliminated. URLs and textual references are also omitted since they are unnecessary for analysis. Eliminating frequent, brief function words (such as pronouns, prepositions, conjunctions, abbreviations, interjections, etc.) still essential to language syntax is "Remove Stop-Words" from the dataset, the stop-words consists of "the, I am, they, you, were, was, etc." (Domagoj Margan, 2015).

3.5. Labeling Data

Labeling the tweets gives us more access to those related to women's education. In other words, one can differentiate which tweets are related to education and which are not. I labeled data using five different keywords. As our dependent variables are women and education, I also selected "girls," referred to as "women", and three other keywords that frequently appear on the tweets. Most people use those keywords to talk about women's education on Twitter, especially in the case of our study. The keywords are: "education", "school", "university", "Women", and "Girl".

These keywords are labeled as one (1), which means the tweet is related to education, while zero (0) means the tweets are neutral or not talking about education. Also, tweets like "beautiful women" or "good school" have been removed from the dataset unless those tweets are relevant to the current study, such as "women banned from education" or "girls cannot go to school" and other tweets which are related to education. Further, the dataset was labeled through machine learning using the Python Programming Language. The keyword "Women Education" is a single keyword that consists of two words that precisely focus on women's education. It breaks down the data into small pieces and analyses only

those tweets with the keyword of “Women Education.” Overall, the data analysis method shed light on the three groups: activists, the Taliban, and the public in Afghanistan, as well as their behavior patterns throughout the study’s three-month duration. Interesting trends and practices, as well as connections between the various groups, were uncovered by the investigation.

Unclean	Clean
remember world let taliban get away completely banning women education five years one hundred ninety nine	remember world let taliban get away completely banning women education five years
Women in Afghanistan after the return of the Dark ages—Taliban rule.	women afghanistan return dark ages taliban rule
"The Taliban banned women’s education in Afghanistan on the order of Pakistan," claims Hamid Karzai.	Taliban banned women education afghanistan order pakistan claims hamid Karzai
The Taliban are afraid of women’s education because they don’t want a bright future for Afghanistan	Taliban afraid women education want bright future Afghanistan
Taliban banned girls’ education in Afghanistan while many Taliban leaders send their daughters to study abroad	taliban banned girl education afghanistan many taliban leaders send daughters study abroad

Table 3. 1: Male Activists' Tweets

Unclean	Clean
Please support women education Afghanistan	please support women education Afghanistan
Almost one Month since surrender Kabul Taliban banned women girl, work, media, sports, and Music Public	almost one month since surrender kabul taliban banned women girl work media sports music public
Unfortunately current problem women education work country serious sad twenty first century	unfortunately current problem women education work

	country serious sad twenty first century
Today, all universities reopened in Afghanistan after winter break, but ONLY for men. These brave young women are peacefully protesting outside Kabul University against Taliban BAN on women going to university. Let us amplify their voices!	today university reopened afghanistan winter break men brave young women peacefully protesting outside kabul university taliban ban women going university let us amplify voices
Taliban ban Afghan Women Education Basic Human Right Least World Could Ban Taliban	taliban ban afghan women education basic human rights least world could ban taliban

Table 3. 2: Female Activists' Tweets

Table 3.1 and 3.2 contains tweets contributed by male and female activists. The tables clearly distinguishes between processed and unprocessed tweets, accompanied by qualitative descriptions. To obtain purified tweets, a variety of methods, which have been previously outlined, were employed. This table serves as a testament to the unwavering commitment exhibited by these activists in their tireless pursuit of advancing women's education. I am aiming to showcase these activists' valuable insights and meaningful contributions to the ongoing discussions surrounding this critical issue by presenting this data in a tabular format. It underscores the significance of their perspectives and amplifies their voices in the continuing dialogue. Including processed and unprocessed tweets in the table provides a comprehensive understanding of these dedicated individuals' opinions and experiences, further enriching the overall discourse on women's education.

Unclean	Clean
Respected Maulvi Abdul Kabir said: Now compared to the past, good conditions have been provided for the return of migrants and aid is provided to them in a transparent manner, and we assure that the rights of migrants and	respected maulvi abdul kabir also said islamic emirate want deprive women education allow go homes mentioned examples women girls actually

returnees and the human rights of all Afghan people are protected. ³ / ₄	engaged business education work offices hospitals
As the majority of the people of Afghanistan are Muslims, the Afghan government considers the observance of the Islamic hijab in accordance with the religious and cultural values of the Afghan society and in accordance with the ideals of the majority of Afghan women, and emphasizes that nothing against the religious and cultural belief of the Islamic society has been imposed on Afghans. . 4/6	majority people afghanistan muslims afghan government considers observance islamic hijab accordance religious cultural values afghan society accordance ideals majority afghan women emphasizes nothing religious cultural belief islamic society imposed afghans
If Europe is working for women's rights in Afghanistan, but it is a slave, then in a religious and conservative society like ours, who can claim destruction rather than work to secure women's rights? Europe should not look at the Afghan society/women from the perspective of its own values.	europe working womens rights afghanistan slave religious conservative society like claim destruction rather work secure womens rights europe look afghan society women perspective values
These are female protesters harassing security forces who are protecting them. This shows the tolerance good behavior of IEA soldiers but no one will show this picture,no western journalist will tweet this. IEA will always protect the women their rights in Afghanistan. #Peace https://t.co/UJ561d2SEQ	female protesters harassing security forces protecting shows tolerance good behavior iea soldiers one show pictureno western journalist tweet iea always protect women rights afghanistan peace
These are female protesters harassing security forces who are protecting them. This shows the tolerance good behavior of IEA soldiers but no	female protesters harassing security forces protecting shows tolerance good behavior

one will show this picture,no western journalist will tweet this. IEA will always protect the women their rights in Afghanistan. #Peace https://t.co/UJ561d2SEQ	iea soldiers one show pictureno western journalist tweet iea always protect women rights afghanistan peace
Head of the Ministry of Higher Education: University doors are closed to women for four reasons. 1_ The existence of women's dormitories 2_ They come from one province to another province without mahram 3_ Students do not observe hijab 4_ And male and female students continue to live together. https://t.co/C2Nub9QmHr	head ministry higher education university doors closed women four reasons existence womens dormitories come one province another province without mahram students observe hijab male female students continue live together

Table 3. 3: Taliban Tweets

Table 3.3 presents tweets from the Taliban. A notable observation is that the Taliban tweets do not appear to support or promote women's education. Conversely, Table 3.1 and 3.2 reveals a surge in the tweets by activists actively advocating for women's empowerment and education. In Afghanistan, male and female advocates use social media platforms to rally public support for promoting girls' education. The activist tweets, as depicted in Table 3.1 and 3.2, reflect a growing emphasis on the significance of women pursuing education. These tweets highlight the collective efforts of activists in raising awareness about the importance of educational opportunities for women. The stark contrast between the Taliban and activist tweets underscores the ongoing struggle between different perspectives on women's education in Afghanistan. While the Taliban's stance seems to oppose women's education, the increasing volume of activist tweets demonstrates a determined movement to empower women through education and challenge existing barriers.

Unclean	Clean
RT @Malala: While banning girls from school, the Taliban are also arresting champions of education. @matiullahwesa founded @penpath1 to pro...	malala banning girl school taliban also arresting champions education matiullahwesa founded penpath pro
Since 555 days, #Afghan #girls #education centers closed in #Afghanistan. Quality Education has the power to transform societies in a single generation. Afghan girls & women need quality education. They need support & help For Formal education, #LetAfghanGirlsLearn https://t.co/2hdSbFAIaC	since days afghan girl education centers closed afghanistan quality education power transform societies single generation afghan girl women need quality education need support help formal education let afghan girl learn
@matiullahwesa is the voice of Afghan generation. He is peaceful education activist. He want to Education for all in Afghanistan. We are all also have obligation to rise voice for Afghan girls and women education in Afghanistan. #RelaeseMatiullahwesa #LetAfghanGirlsLearn https://t.co/Yv4BBSNrB4	matiullahwesa voice afghan generation peaceful education activist want education afghanistan also obligation rise voice afghan girl women education afghanistan relaesematiullahwesa let afghan girl learn
Negotiating the ban on women education in Afghanistan is so silly. Explaining to anyone why Afghan women have the right to get an education is so silly. Explaining how and why Islam supports is so silly. It is all just waisting time. #Taliban wont allow so the wait is also silly. https://t.co/sk5VtLjAiD	negotiating ban women education afghanistan silly explaining anyone afghan women right get education silly explaining islam supports silly waisting time taliban wont allow wait also silly
The war in Afghanistan is to destroy the idea of education. This war started fifty years	war afghanistan destroy idea education war started fifty

ago. The world cannot even imagine how many teachers, students and education workers have been killed and how many schools have been burned in Afghanistan. https://t.co/IkUwrNtI3Z	years ago world cannot even imagine many teachers students education workers killed many school burned afghanistan
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Table 3. 4: Public Female Tweets

Table 3.4 contains tweets of Afghan public females, tweets addressing education and support for women. These tweets illustrate the solidarity displayed by Afghan women for their fellow women and their education. One such example is the story of "matiullahwesa," an activist who the Taliban recently jailed for his passion for women's education and his attempts to arrange private lessons for females. Unfortunately, his situation remains unknown following his arrest. The tweets illustrate that people are fully aware of the relevance of education and consequently speak up for it. Moreover, other tweets suggest that the impediments to education extend beyond the Taliban, pointing out that the continuing fighting in Afghanistan also restricts educational prospects.

Unclean	Clean
@tomas_niklasson @gmukhopadhaya Excellencey! I really appreciate your efforts for Afghanistan and Afghans. Afghans love to see you and others like you working for peace, political stability and protection of human rights particularly women education and rights in Afghanistan.	tomas niklasson gmukhopadhaya excellencey really appreciate efforts afghanistan afghans afghans love see others like working peace political stability protection human rights particularly women education rights Afghanistan
Have men in Afghanistan also staged rallies in support of women education? Women have been banned by Taliban for last 2 years but men inside Afghanistan are as silent as they have been sniffed by snake.	men afghanistan also staged rallies support women education women banned taliban last years men inside afghanistan silent sniffed snake unfortunately

Unfortunately many Afghans/Pashtun have religion dearer than their country	many afghanspashtun religion dearer country
Taliban reclusive Ameer Haibatulla said that his Emirate will not surrender to int pressure over women education and rights. In 2001 also TBs had such stubborn stance over #Osamabinladen who latter on was killed by US in Pak. Is Pak Army eying for an other project over Afg?	taliban reclusive ameer haibatulla said emirate surrender int pressure women education rights also tbs stubborn stance osamabinladen latter killed us pak pak army eying project afg
Afghanistan needs women leadership and women need education. Taliban r afraid of educated women. We stand with Afghan women and demand to let them get educated. Without women education no nation can prosper. Afghanistan needs prosperity and prosperity needs educated girls.	afghanistan needs women leadership women need education taliban r afraid educated women stand afghan women demand let get educated without women education nation prosper afghanistan needs prosperity prosperity needs educated girl
Why Taliban in Afghanistan r so much against women education and empowerment? Who r Taliban to decide about dress and education of women? Let us stand against terrorist Taliban and their masters in Pakistan to emancipate women and Afghanistan from them.	taliban afghanistan much women education empowerment taliban decide dress education women let us stand terrorist taliban masters pakistan emancipate women afghanistan

Table 3. 5: Public Male Tweets

In Table 3.5, the tweets from Afghan males paint a clear picture of their unwavering support for women's education while explicitly blaming the Taliban for their imposed bans. These tweets reveal a strong sentiment among Afghan males, advocating for equal educational opportunities for women. The frequency with which they address the Taliban and call for permission for women's education

showcases their commitment to this cause. What is particularly interesting is the widespread sentiment among Afghan people, as reflected in these tweets, that holds the Taliban responsible for their actions. Many tweets express a belief that the Taliban is influenced or even directed by Pakistan, suggesting that external forces influence decisions about women's education. This sentiment further reinforces the public's frustration with the Taliban's stance on education and their perceived interference from neighboring countries. The overall tone of the tweets is one of committed support for education, specifically emphasizing the importance of women's education. It is heartening to witness the solidarity expressed in these tweets, with Afghan males standing firmly alongside women's education and actively voicing their concerns and demands. Despite significant challenges and opposition, these tweets testify to the collective determination to uplift Afghan women through education.

CHAPTER IV

ACTIVISTS', TALIBANS' AND AFGHANISTAN PEOPLE'S VIEWS ON WOMEN'S EDUCATION

In this section, the approach begins with comparing and contrasting the tweets from activists, the Taliban, and the public. I examine the content of their tweets specifically related to women's education. Next, I consolidate only activists and analyze their perspectives collectively. By doing so, I am aiming to identify similarities and differences in their tweet tones and the topics they discuss about education. I do not decide the tones of tweets; everything I do in this study is based on machine learning. As part of the data acquisition methodology, I procured tweets from a heterogeneous group of activists. Initially, I categorized these activists based on their sex, distinguishing between males and females. Continuing the analysis, I merged the tweets from all three groups and classified them into activists, the Taliban, and the people (public). This categorization approach was chosen to understand the collected tweets' different views. By examining the distinct viewpoints of activists, delving into the narratives surrounding the Taliban, and considering the thoughts and sentiments expressed by the public, I aimed to explore their views individually present within the data.

In recent years, sentiment analysis on Twitter has become a subject of increasing research interest. Twitter, a widely popular microblogging platform, allows users to freely share their thoughts and opinions. In this context, sentiment analysis's primary goal is to analyze tweets and discern the underlying sentiment they convey (Crestani, 2016).

Twitter possesses distinctive features that set it apart, including:

1. Concise messages: Tweets are limited in length, encouraging brevity and conciseness.
2. Easy access and download: Twitter allows convenient access and downloading of posted content.
3. Large dataset: Twitter's extensive user base and high posting frequency contribute to its reputation as one of the enormous datasets of user-generated content.

4.1 Activist, Taliban, and Public Views

This section consists of activists, both male and female; Taliban officials, who are only male as there are no women in the cabinet of the Taliban; and the public, which is Afghan people not directly involved in politics. Except for the Taliban, the other two groups consist of males and females, but our focus is not on sex. Instead, I analyze them in a group, based on their background, like “activist, the Taliban, and the public.” At first, I would have a look at their tweets in the group, then I moved forward and analyzed them in depth, using the keywords “education,” “school,” “university,” “women,” “girl,” and “women education”. These keywords narrow down the dataset and analyze only those tweets related to these particular topics.

The analysis focused on three groups: activists, the Taliban, and the public. The sentiments expressed in the dataset were categorized into negative, neutral, and positive. Looking at the sentiment distribution, it is evident that the majority sentiment in all three groups is neutral. Activists have the highest count of neutral sentiments with 21,713 occurrences, followed by the people with 43,428 occurrences. The Taliban group, however, has a relatively lower count of neutral sentiments, with the exact number not specified. Moving on to positive sentiments, activists show a significant proportion, with 18,635 occurrences. People also exhibit a considerable number of positive sentiments, with 39,255 occurrences. The Taliban have 34,009. Regarding negative sentiments, activists have 11,568 occurrences, while people demonstrate 22,944 occurrences. Similarly, the percentage of negative sentiments for the Taliban group is 16,204.

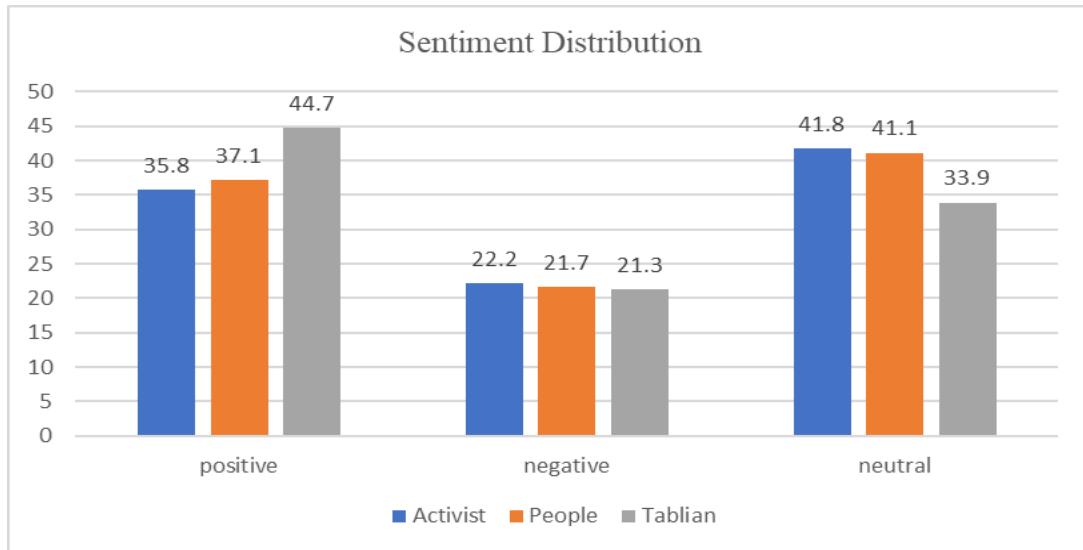


Figure 4. 1: Sentiment Distribution

The percentages of each sentiment category for the different groups can be analyzed for further insights. For the activist group, negative sentiments represent approximately 22.28 percent of the total sentiments, while neutral sentiments comprise the most significant proportion at 41.82 percent. Positive sentiments also have a substantial presence, accounting for about 35.89 percent of the sentiments activists express. For the public, the distribution of sentiments is somewhat similar. Negative sentiments comprise around 21.72 percent, while neutral sentiments constitute the highest percentage at 41.11 percent.

Positive sentiments comprise approximately 37.16 percent of the sentiments expressed by the public. In the case of the Taliban group, negative sentiments account for roughly 21.33 percent of the sentiments expressed, while neutral sentiments comprise approximately 33.90 percent. Notably, the Taliban group shows a higher proportion of positive sentiments, with around 44.77 percent. Notably, the provided information covers a wide variety of topics outside only women's education, and this study looks at how sentiments are spread across the board. Negative, neutral, and positive sentiment categories capture the range of opinions and feelings expressed by participants in the dataset. In the next section, I break down our dataset on women's education through five previously mentioned keywords.

In the sentiment distribution provided in Figure 4.1, it can be observed that the sentiment values for the Taliban group are represented as "NaN" (Not a Number). This occurrence raises questions and requires investigation to understand the underlying

reasons. One potential explanation is insufficient relevant data about the Taliban group and the given keywords.

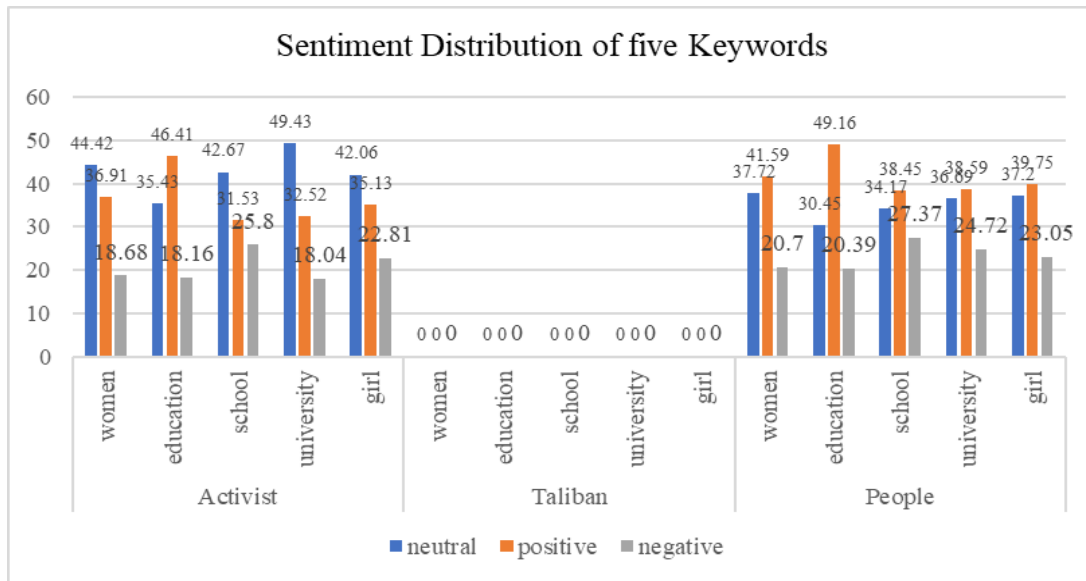


Figure 4. 2: Sentiment Distribution of Five Keywords

Sentiment analysis algorithms rely on a substantial amount of data to accurately assess sentiment, and the absence of an adequate sample size for the Taliban group could lead to missing sentiment values. It is also possible that during the data filtering or preprocessing stages, the criteria applied to extract tweets related to the Taliban group inadvertently resulted in the exclusion of relevant tweets for those specific keywords. Furthermore, the sentiment expressed in tweets associated with the Taliban group might exhibit unique patterns or intricate nuances that challenge sentiment analysis algorithms to assign sentiment scores accurately.

When examining the sentiment distribution among activists, I observed varying opinions on the issue of women's education. For the keyword "women", the sentiment distribution showed diverse views. Approximately 44.42 percent of the tweets expressed a neutral sentiment, indicating a lack of clear stance or mixed opinions. Meanwhile, 36.91 percent of the tweets supported women's issues, emphasizing the importance of education and empowerment. However, it is worth noting that around 18.68 percent of the tweets reflected a negative sentiment and expressed reservations or opposition toward women's education.

Moving on to the keyword "education", I found that among activists, 35.43 percent of the tweets had a positive sentiment, highlighting the value and significance of education for women. Conversely, 18.16 percent of the tweets expressed a negative

sentiment, suggesting concerns or objections regarding women's access to education. Notably, 46.41 percent of the tweets remained neutral, indicating a lack of solid sentiment or a balanced perspective among activists. Regarding the keyword "school", the sentiment distribution showed a similar pattern. Activists expressed a mix of sentiments, with 42.67 percent of the tweets being neutral, 31.53 percent positive, and 25.80 percent negative. This suggests that while a significant proportion of activists support the idea of women attending school, there are also concerns or criticisms expressed by a notable portion of the community.

For the keyword "university", the sentiment distribution among activists revealed that 49.43 percent of the tweets had a neutral sentiment, indicating a lack of a clear stance. However, 32.52 percent of the tweets were positive, demonstrating support for women pursuing education. Around 18.04 percent of the tweets displayed a negative sentiment, reflecting reservations or objections toward women's participation in university education. Lastly, focusing on the keyword "girl", the sentiment distribution among activists showcased a similar trend to the previous keywords. Approximately 42.06 percent of the tweets had a neutral sentiment, while 35.13 percent expressed a positive sentiment, emphasizing the significance of supporting girls' education. Around 22.81 percent of the tweets displayed a negative sentiment, indicating concerns or criticisms about girls' education access.

I can observe notable differences when comparing the sentiment distribution between the people and activist groups. The activist shows higher support for women's education, with higher percentages in the positive sentiment category than the people. The activist also demonstrates a relatively lower portion in the negative sentiment category. Conversely, the people group has a higher percentage in the negative sentiment category, suggesting a comparatively lower level of support or more critical views regarding women's education. These differences highlight varying perspectives and levels of support within the two groups, emphasizing the distinct roles and attitudes of activists and the general population in advocating for women's education.

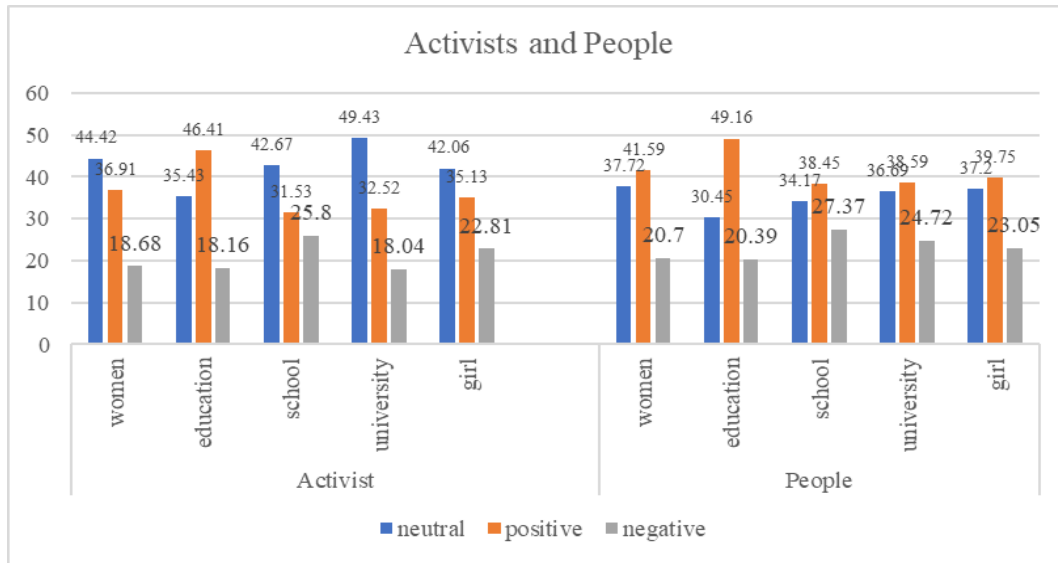


Figure 4. 3: Activists and People

When comparing the keywords used by activists and the public, Figure 4.3 indicates that activists tend to express more positive sentiments. The language employed by activists exhibits a greater inclination toward positivity than the language used by the wider public.

Activist					
Sentiment	Women	Education	School	University	Girl
Neutral	44.42	35.43	42.67	49.43	42.06
Positive	36.91	46.41	31.53	32.52	35.13
Negative	18.68	18.16	25.80	18.04	22.81

Table 4. 1: Sentiment Analysis, Activists

Taliban					
Sentiment	Women	Education	School	University	Girl
Neutral	Nan	Nan	Nan	Nan	Nan
Positive	Nan	Nan	Nan	Nan	Nan
Negative	Nan	Nan	Nan	Nan	Nan

Table 4. 2: Sentiment Analysis, Taliban

Public					
Sentiment	Women	Education	School	University	Girl
Neutral	37.72	30.45	34.17	36.69	37.20
Positive	41.59	49.16	38.45	38.59	39.75
Negative	20.70	20.39	27.37	24.72	23.05

Table 4. 3: Sentiment Analysis, Public

In Table 4.1, 4.2, and 4.3, we can observe the percentage breakdown of each keyword, highlighting an unfortunate absence of data for the Taliban group. There are a couple of potential explanations for this absence. It could be that the Taliban either refrains from tweeting about these specific keywords or their involvement in discussions related to women, education, school, university, and girl is minimal, resulting in negligible representation in the collected data. It underscores the significance of the data obtained from the other two groups, providing valuable insights into their perspectives.

Tweets Related to Keywords
jobs allocated women educational sector today announced ministry education jobs teachers administrative staff male female states herat farah ghor badghis nangarhar laghman kunar nuristan
many years uzbekistan hijab allowed women educational institutions
public private universities throughout country open men women education process extended percent remaining parts country thousands women education higher education public health id passport offices airports police media

Table 4. 4: Tweets Related to Five Keywords

To delve deeper into women's education, I refined the data analysis and concentrated solely on this keyword. As I sifted through the data, I can observed several intriguing patterns that began to emerge. The initial focus was on the Taliban group, as their position on women's education holds particular significance. Regrettably, I encountered a limitation in our analysis due to the unavailability of sentiment distribution data for the Taliban in our dataset. This absence of information presents a challenge to comprehending the Taliban's specific stance on women's education.

There are a couple of potential explanations for this gap. The Taliban may refrain from participating in discussions or posting tweets on women's education. Alternatively, their stance on women's education might need to be adequately represented within the dataset I am working with. To gain further insight, I recommend referring to Table 4.2, which contains the most relevant education-related tweets within the Taliban dataset. By examining these specific tweets, I can glean some valuable information and potentially shed light on the Taliban's position on women's education. This targeted analysis could provide a more nuanced understanding of their views and intentions regarding this crucial aspect of education. Understanding the

Taliban's stance on women's education is paramount, as it directly impacts the lives and opportunities available to women in regions under their control.

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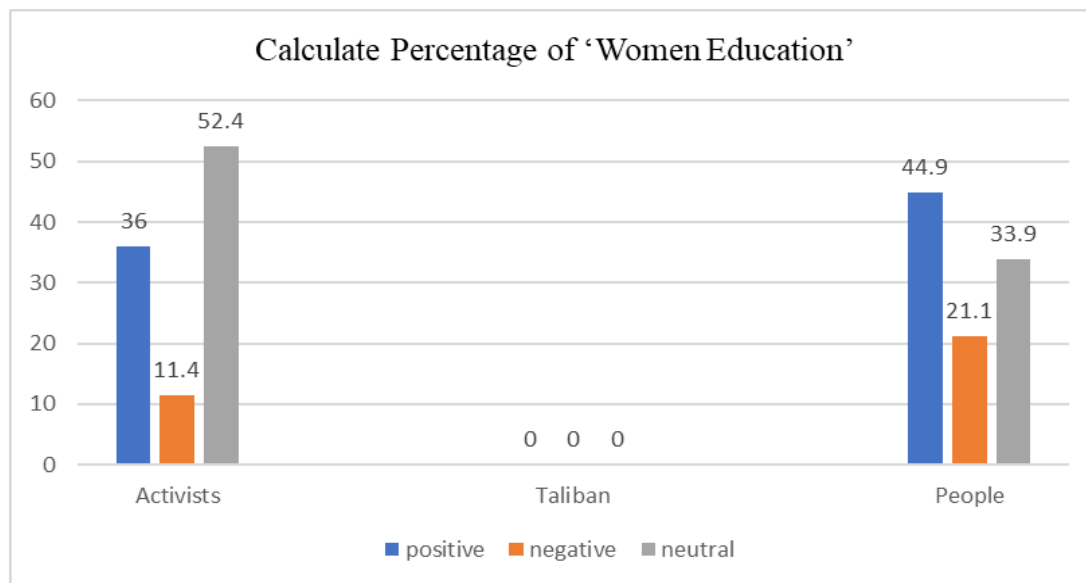


Figure 4. 4: Calculated Percentage of 'Women Education'

Considering the sentiment distribution among people, it is evident that a significant proportion of tweets, 33.94 percent, express a neutral sentiment. This suggests diverse opinions and perspectives among the general public regarding women's education. On the positive side, 44.95 percent support women's education, indicating a widespread belief in empowering women through educational opportunities. Conversely, 21.1 percent of the tweets are negative, highlighting concerns or reservations people may have regarding various aspects of women's education.

Based on the analysis of the sentiment distribution on the specific keyword "women education", activists show a mixed sentiment with a notable emphasis on support and advocacy. However, the lack of available data on the Taliban group limits our understanding of their stance. The public's sentiment distribution reveals diverse opinions, with a significant portion expressing support for women's education while acknowledging some negative sentiments. These findings shed light on the complexities and varying perspectives surrounding women's education within different groups, underscoring the need for further exploration and dialogue on this crucial topic.

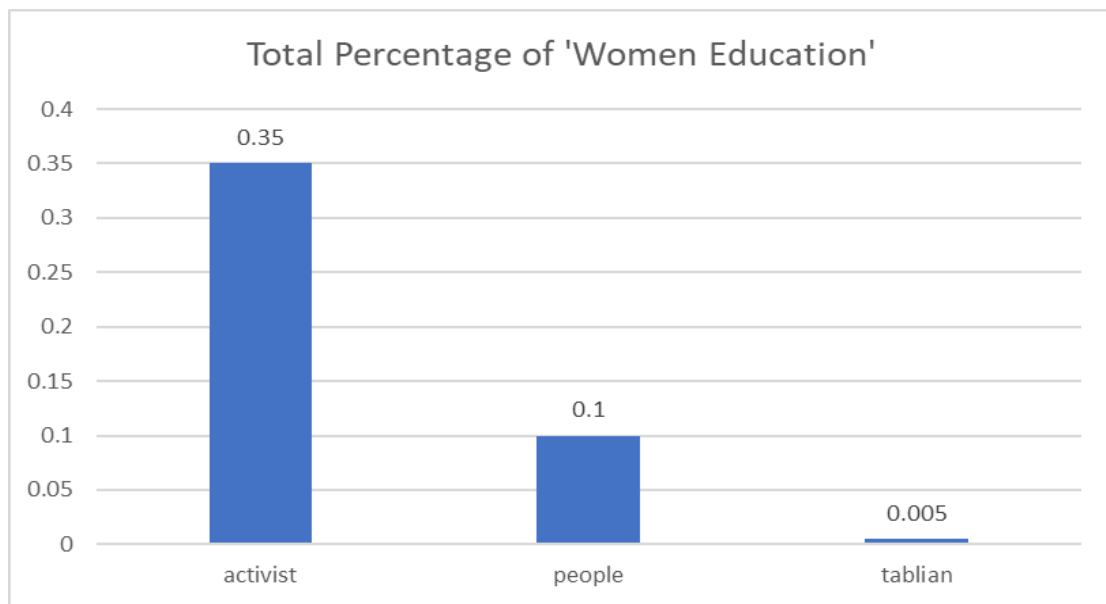


Figure 4. 5: Total Percentage of 'Women Education'

The analysis reveals that the keyword "women education" has varying percentages among the different groups. Activists have the highest percentages, with 0.352492 percent of their tweets mentioning this keyword, followed by people with 0.103193 percent. On the other hand, the Taliban group has the smallest percentage of 0.005265 percent, which is why it does not appear in the calculations. Regarding the total number of tweets mentioning the keywords "women education", activists have 183 such tweets, while the public has 109, and the Taliban only has 4. These findings indicate that activists engage more frequently in discussions related to women's education, followed by people, while the Taliban group demonstrates the least involvement in conversations about this topic.

4.2 Analyzing the Frequency of Keywords Regarding Women's Education

Figure 4.6 below provides valuable insights regarding our keywords, namely "women", "education", "school", "university", and "girl". It illustrates the frequency of these keywords' usage by different groups each year. Based on the figure, I can observe that activists have consistently used these keywords more frequently in their tweets, particularly between October 2022 and January 2023. These findings suggest that the

activist group has shown higher engagement and emphasis on these topics during those specific time frames.

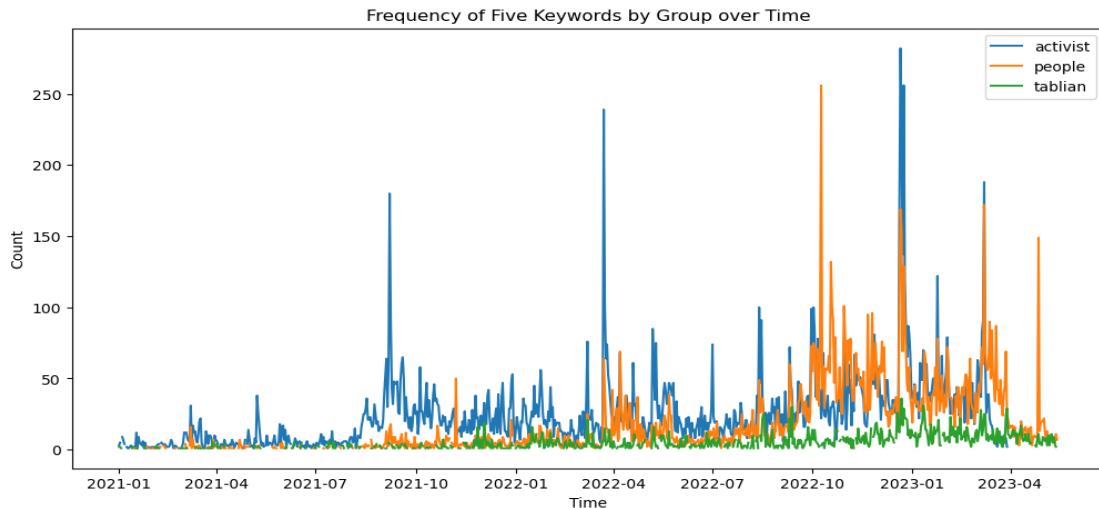


Figure 4. 6: Frequency of Five Keywords by Group Over Time

Additionally, the analysis reveals that the public has noticeably utilized the mentioned keywords. It indicates that people are actively engaged in discussions related to education and express support for women's rights and equality in education. On the other hand, the Taliban has exhibited a considerably lower frequency of tweets containing these keywords. This suggests that the Taliban group may not prioritize or demonstrate concern for women's education based on their limited usage of these keywords.

4.3 Taliban's Most Frequent Words

The Taliban's most frequently used terms reveal their point of view. Words like "Afghanistan", "people", and "Islamic" reveal their connection with the region, their religion, and their political leanings, respectively. They appear to be leading towards an Islamic state, as terms like "minister", "country", and "emirate" all point that way. The words "ministry", "God", "said", and "foreign" all allude to their diplomatic and theological concerns. These reoccurring expressions shed light on the Taliban's overarching goals and ideas.

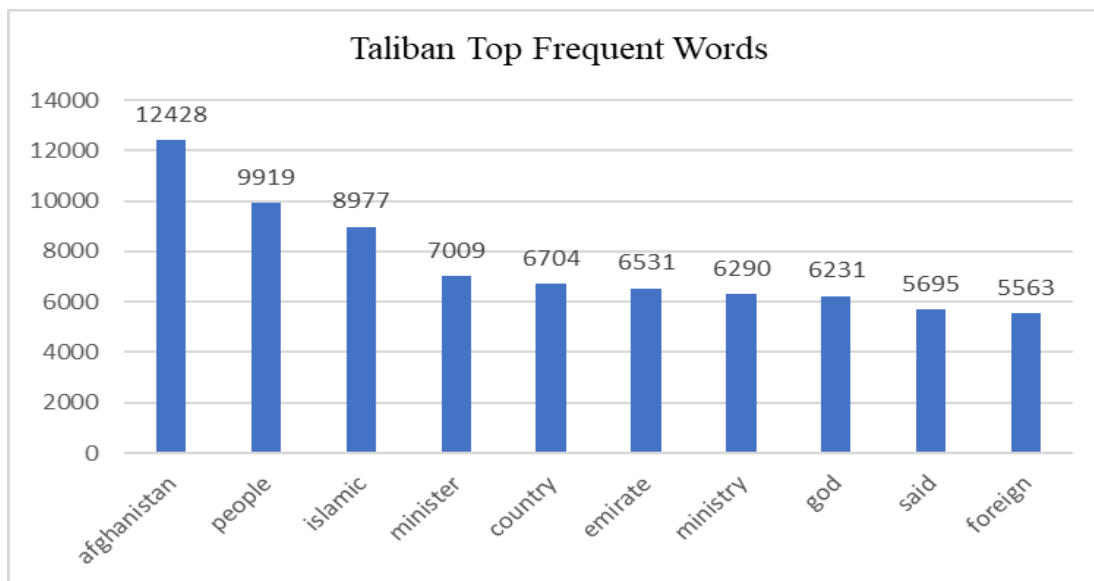


Figure 4. 7: Taliban Top Frequent Words

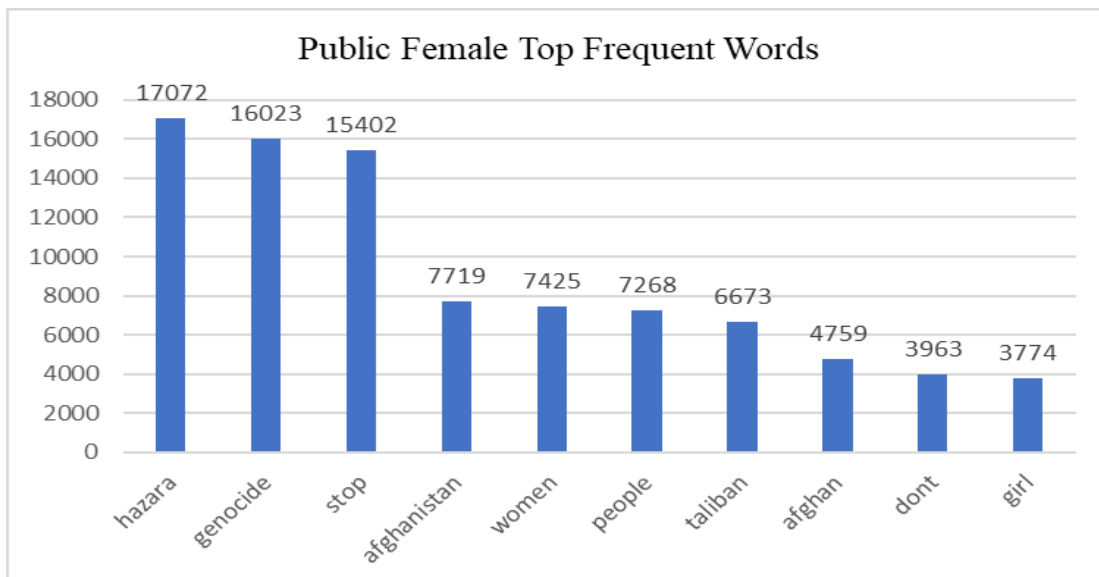
The Taliban's word cloud provides valuable insights into their core themes and priorities. It visually represents keywords associated with the Taliban, highlighting their close connection to Afghanistan and Islamic ideology. Prominent terms like "Afghanistan", "people", and "Islamic" emphasize the strong association between the Taliban and the country. It signifies their deep-rooted presence in Afghanistan and their commitment to religious beliefs.

Terms such as "minister", "country", and "emirate" suggest the Taliban's engagement in governance and their pursuit of an Islamic state. These words highlight their aspirations beyond military activities. The word cloud captures the Taliban's main focus areas and values. It offers a concise visual representation, giving observers a glimpse into the themes and priorities that define the Taliban in Afghanistan. Analyzing these keywords can help us understand the Taliban's mindset, objectives, and aspirations within Afghanistan's social, political, and religious landscape.



4.4 Female Public's Most Frequent Words

Ordinary women's top 10 words represent their worries and activism. "Hazara", "genocide", and "stop" show their awareness and activism. "Afghanistan", "women", and "people" demonstrate their national identity. "Taliban" offers their resistance to the gang, while "girl" underlines their empowerment of young women. These remarks reveal the social and political priorities of regular women.





The male public word cloud expresses their concerns about Afghanistan and the Taliban. "Afghanistan", "Taliban" and "people" show their focus on the country's predicament and its impact on Afghans. "Hazara", "genocide", and "Pakistan" indicate their grasp of regional affairs. "Stop", "country", and "one" emphasize their patriotism, action, and individuality. The word clouds show the most pressing issues and areas of interest, including Afghanistan, the Taliban, and the Hazara people. It shows that they care about ending genocide, Pakistan, and violence. The cloud symbolizes the people's love of their homeland and dedication to maintaining tranquillity there.

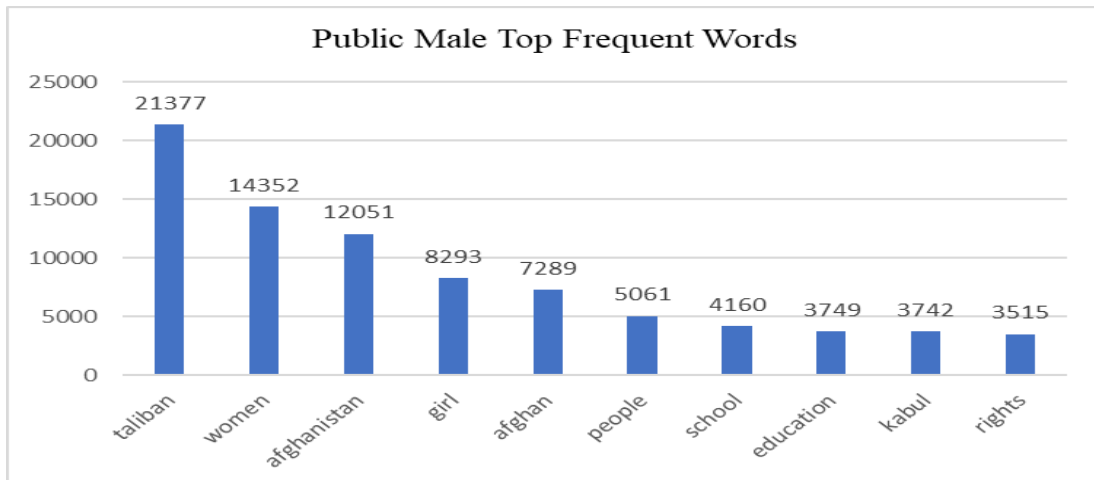


Figure 4. 11: Male Public Most Frequent Words



Figure 4. 12: Public Male Word-Cloud

4.5 Male and Female Activists' Views

It is essential to have insight into both activists' tweets, and I differentiate them based on their gender: male and female. I collected every user individually, labeling them as male or female. Then I merged them through coding and compared them through coding. In this study, every single part of the data is analyzed, and humans do not discuss the data through the machine. I started with male tweets, a total of 8,312 (47.75 percent) neutral, 5,182 (29.77 percent) positive, and 3,914 (22.48 percent) negative tweets achieved from the entire dataset, which belongs to the male activists. The result shows the number of tweets and the percentage of the tweets. I have implemented the same method for the female activists. The results shown here belong to the females: a total of 13,583 (38.99 percent) were neutral, 13,531 (38.84 percent) positive, and negative 7,724 (22.17 percent). According to their tweets, female activists tended more toward positive and less neutral, while male activists were less favorable more neutral. This belongs to the entire dataset, which talks about different topics, and females are more positive in the number of tweets and their percentage.

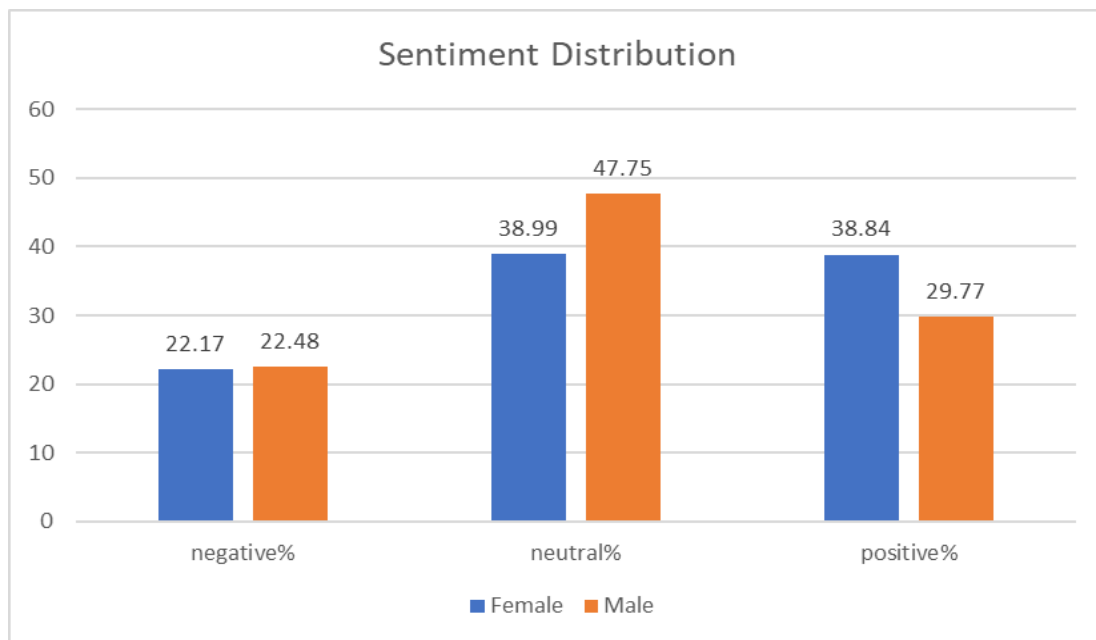


Figure 4. 13: Sentiment Distribution (Activists)

In Figure 4.13, I compared and contrasted the tweets of male and female activists, taking their sex into account. According to the data, male activists tweet at a rate of 47.75 percent neutral, 29.77 percent positive, and 22.48 percent negative. Female activists, in comparison, had a neutrality rate of 38.99 percent, a positivity rate of 38.84 percent, and a negativity rate of 22.17 percent in their tweets. As earlier explained, I break down the tweets through five keywords, which are “women”, “girl”, “school”, “university”, and “education.” This allows us to analyze only those tweets related to women’s education, and we remove any tweets with one of these keywords that are not related to women’s education. The first result covers tweets related to male activists. I demonstrate each word individually, and for this section, the results are as follows:

Male activists for each keyword: "Women" neutral, 1,674 (53.90 percent); positive, 902 (29.04 percent); and negative 530 (17.06 percent). "Education" neutral, 639 (41.71 percent); positive, 664 (43.34 percent); negative, 229 (14.95 percent). "School" neutral, 656 (47.33 percent); positive, 375 (27.06 percent); negative, 355 (25.61 percent). "University" neutral, 436 (56.70 percent); positive, 210 (27.31 percent); negative, 123 (15.99 percent). "Girl" neutral 1,104 (46.96 percent); positive, 731 (31.09 percent); negative, 516 (21.95 percent).

Female activists for each keyword: "Women" neutral, 3,594 (41.18 percent); positive, 3,457 (39.61 percent); negative, 1,677 (19.21 percent). "Education" neutral 690 (31.19 percent); positive, 1,074 (48.55 percent); negative, 448 (20.25 percent). "School" neutral 976 (39.98 percent); positive, 829 (33.96 percent); negative, 636 (26.05 percent). "University" neutral 442 (43.85 percent); positive, 368 (36.51 percent); negative, 198 (19.64 percent). "Girl" neutral, 1,953 (39.66 percent); positive, 1,824 (37.04 percent); negative, 1,147 (23.29 percent).

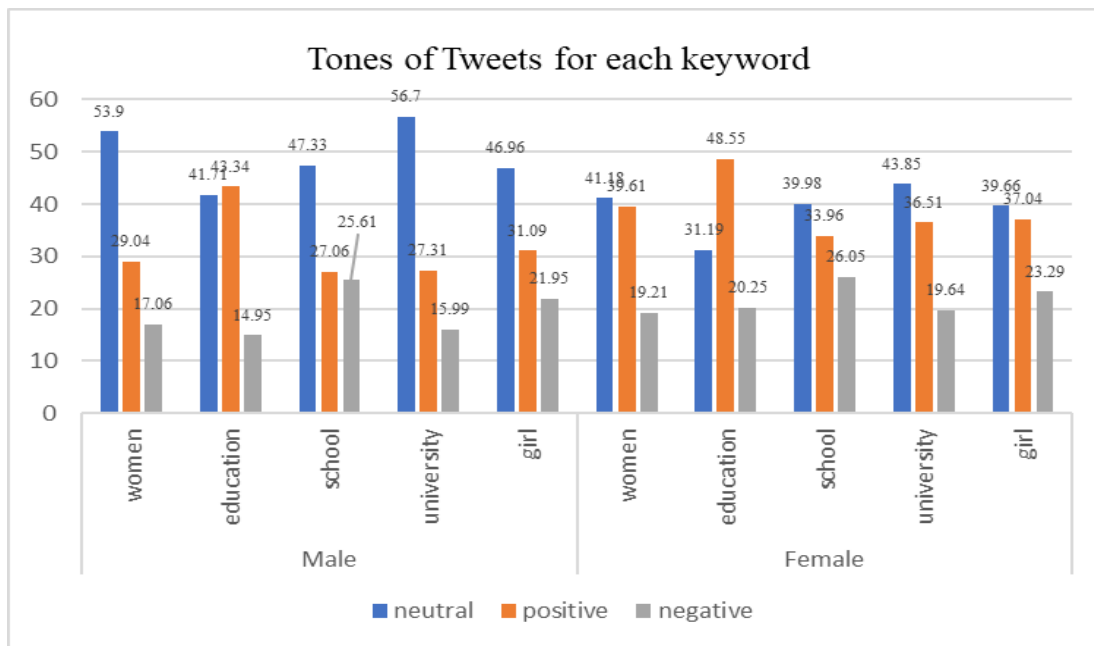


Figure 4. 14:Tones of Tweets for each keyword (Activists)

In Figure 4.14, male activists expressed varying sentiments across different keywords. For instance, when discussing "women", they had a higher proportion of neutral tweets (53.90 percent) compared to positive (29.04 percent) and negative (17.06 percent) tweets. Similarly, for keywords such as "education", "school", "university", and "girl", their sentiment distributions showed a combination of neutral, positive, and negative tweets with distinct percentages. On the other hand, female activists exhibited similar patterns of sentiment distribution for the exact keywords, albeit with slightly different proportions. The tone of tweets related to the keywords reveals insights about the average percentages among male and female activists. Among male activists, the average sentiment leans towards neutrality, with 49.04 percent of their tweets

categorized as neutral. Positive sentiments account for approximately 31.43 percent of their tweets, while negative sentiments make up 19.52 percent of their tweets.

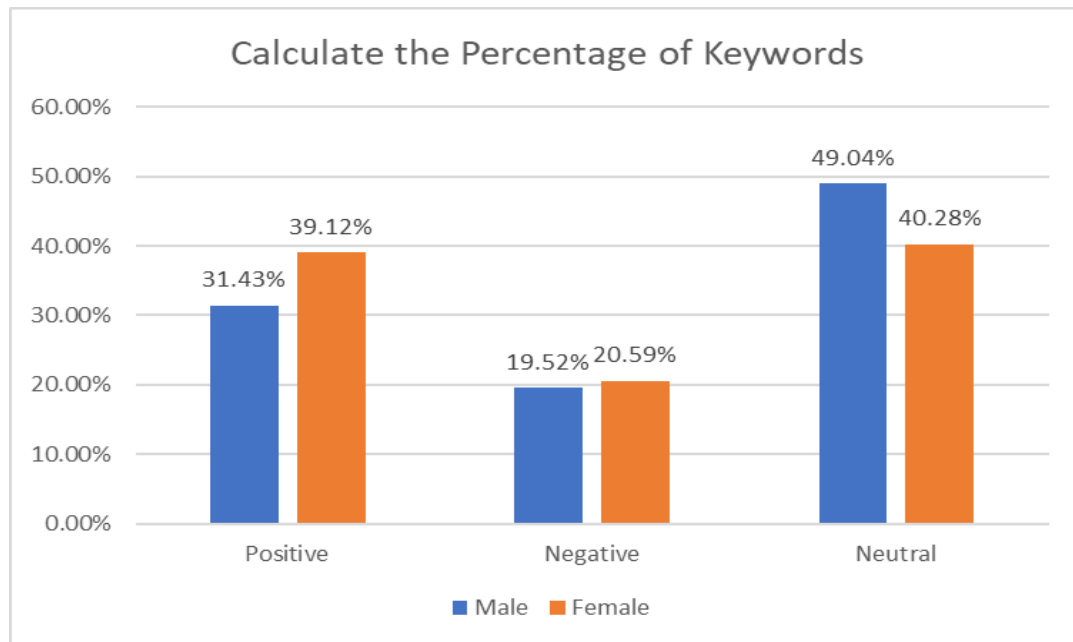


Figure 4. 15: Calculated Percentage of Keywords (Activists)

In Figure 4.15, female activists exhibit a slightly different sentiment distribution. The average percentages for females indicate a higher inclination toward positivity, with 39.12 percent of their tweets categorized as positive. Negative sentiment is present in 20.59 percent of their tweets, while 40.28 percent are neutral. These findings suggest that male and female activists express significant neutrality in their tweets. However, female activists tend to have a higher proportion of positive sentiment compared to their male counterparts. These distributions shed light on the overall sentiment tendencies of male and female activists when discussing topics related to education, school, university, women, and girls.

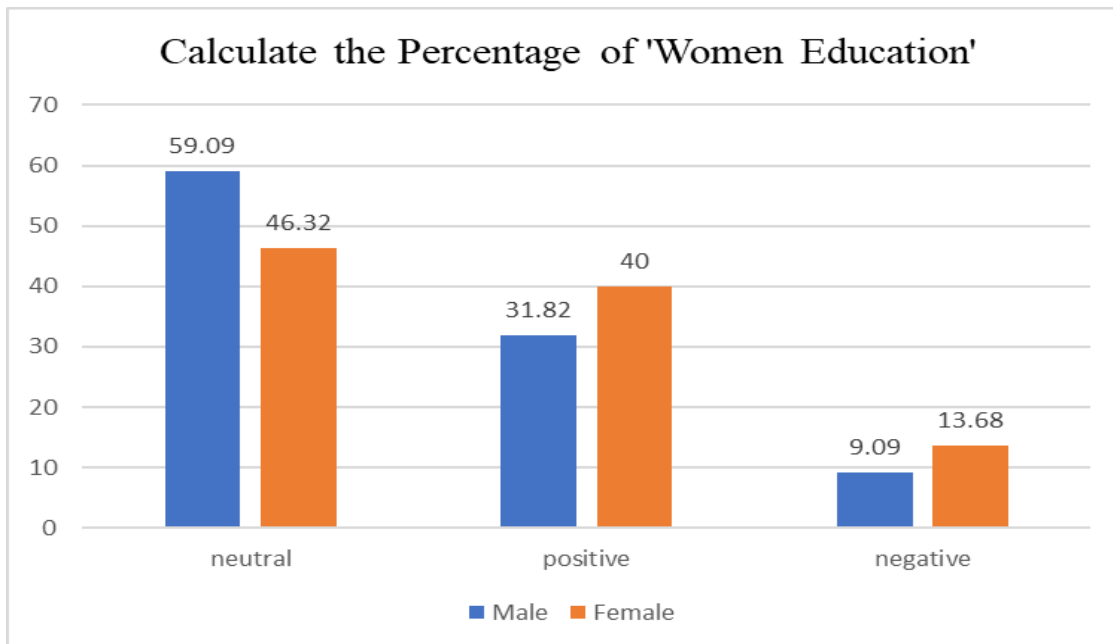


Figure 4. 16: Calculated Percentage of 'Women Education'

In Figure 4.16, the analysis focused on the sentiment distribution and the number of tweets related to the keyword “women education” among male and female activists. For the male activists, the sentiment distribution for the “women education” keywords was as follows: 59.09 percent of tweets were classified as neutral, indicating a balanced viewpoint. Positive sentiment accounted for 31.82 percent of the tweets, reflecting support and appreciation. On the other hand, 9.09 percent of the tweets had a negative sentiment, indicating criticism or concerns. The sentiment distribution for the same keywords showed a slightly different pattern among female activists. Most tweets, 46.32 percent, were classified as neutral, suggesting a cautious or unbiased stance. Positive sentiment accounted for 40.00 percent of the tweets, indicating higher support and enthusiasm.

There were negative sentiments in 13.68 percent of the tweets, indicating dissatisfaction or criticism. In terms of the number of tweets, among male activists, there were 52 neutral tweets (59.09 percent), 28 positive tweets (31.82 percent), and eight negative tweets (9.09 percent) related to “women education”. Among female activists, there were 44 neutral tweets (46.32 percent), 38 positive tweets (40.00 percent), and 13 negative tweets (13.68 percent). Overall, the analysis provides insights

into the sentiment distribution and the number of tweets related to “women education” among male and female activists. While both genders expressed a range of sentiments, the specific distribution varied slightly, suggesting potential differences in perspectives and engagement on this topic

Text	Sentiment
unfortunately current problem women education work country serious sad twentyfirst century gender apartheid	Negative
afghanistan tragedy the taliban destructive group afghanistan banned women education colleges uni	Negative
unfair say entire pashtun population women education untrue urban pashtuns always support	Negative
protest talibans ban women education female employees kandahar healthcare centre	Negative
complete ban women education afghanistan blatant slap face ummah male female	Negative

Table 4. 5: Tweets related to 'Women Education'

Figure 4.16 shows that female activists are likelier to regard the keyword “women education” negatively. That is why examining what they tweet about is so important. Tweets about women’s education from female activists are compiled in Table 4.6; these tweets have been scrubbed, and their hostility has been assessed automatically. After analyzing the tones of the activists’ tweets, it is time to identify their different tweets. This helps us to understand which activists have a more positive, negative, and neutral tone.

Gender	T-Statistic	P-Value
Male	13.59%	6.61%
Female	42.01%	0.00%

Table 4. 6: Sentiment Scores for Entire Dataset (Activists)

Table 4.6 shows the results of my study into the gender gap in tweet sentiment ratings throughout the entire dataset. Although I looked at the whole dataset, I zeroed in on the differences between male and female responses. The P-value reflects the statistical significance of the difference in mean attitudes between the two groups, while the T-statistic evaluates the magnitude of that difference. The T-statistic for

detecting a difference in sentiment between positive and negative tweets about men was 13.59 percent. It is improbable that this difference would have arisen by chance, as indicated by the incredibly small P-value of 6.61 percent.

I found an even starker contrast between male and female tweets. The T-statistic of 42.01 percent is significantly different from zero, which would show no bias in any direction. This difference is highly noteworthy; the P-value of 0.00 supports this conclusion. In addition, I used our keywords to analyze educational-themed tweets. I used the same method for our five keywords, which are “education”, “school”, “university”, “women”, and “girl”. By doing this, I compared male and female tweets through coding (see [Appendix](#)). Table 4.4 reveals that the T-statistic of 12.23 percent indicates that the sentiment score significantly differs from the neutral value of 0. The P-value of 4.97 percent implies a highly significant difference. As seen above, men’s views on education, especially regarding women, clearly display a sentiment that markedly deviates from neutrality.

Gender	T-Statistic	P-Value
Male	12.23%	4.97%
Female	28.32%	1.69%

Table 4. 7: Calculate Sentiment Scores for Five Keywords (Activists)

When I refer to women’s tweets, I get a significant departure from neutrality, with a T-statistic of 28.32 percent and an incredibly small p-value of 1.69 percent. This indicates that women’s sentiments about education differ significantly from neutrality, as expressed in their tweets. These findings highlight males' and females' perspectives and attitudes when discussing education. Understanding these divergent sentiments is crucial for addressing gender-specific challenges and promoting inclusivity in educational contexts. In short, the analysis provides strong evidence of gender-related differences in sentiment expression and emphasizes the need for considering gender perspectives in education discourse. To get solid results regarding women’s education, it is time to test the “women education” keyword, which counts as a single keyword.

Gender	T-Statistic	P-Value
Male	2.59%	0.01%
Female	3.43%	0.00%

Table 4. 8: Sentiment Scores for Women Education (Activists)

The “women education” analysis uncovered distinct sentiment patterns among males and females. Male tweets displayed a discernible shift from neutral sentiment, as evinced by a T-statistic of 2.59 percent and a p-value of 0.01 percent. Meanwhile, female tweets exhibited an even more pronounced deviation, indicated by a higher T-statistic of 3.43 percent and a p-value of 0.00 percent. These findings underscore the substantial differences in the sentiment expressed by males and females when discussing women’s education. Recognizing and addressing these divergences can guide targeted approaches and foster inclusivity within educational contexts. Gender is crucial in shaping perspectives and emotions surrounding this critical topic.

The chi-squared test of independence was performed separately for the male and female genders. For the male gender, the test yielded a chi-squared statistic of 53.38 and an extremely small p-value of $2.57e-12$. Similarly, for the female gender, the chi-squared statistic was 35.16, with a highly significant p-value of $2.31e-08$. These results indicate a strong association between the gender of the users and the presence of tweets related to the five specified keywords. The cross-tabulation of gender and label shows that 21,222 tweets were not associated with the keywords among females, while 13,616 tweets were related. Among males, 10,934 tweets were unrelated to the keywords, and 6,474 were related.

The significant chi-squared test results suggest that the occurrence of tweets related to the specified keywords differs significantly between genders. The findings imply notable differences in the engagement and discussion of the selected topics on social media platforms based on gender. Such insights can be valuable for understanding gender-specific perspectives and behaviours related to the given keywords. They can aid researchers, policymakers, and educational institutions in tailoring strategies and initiatives accordingly.

4.6 Female Activists' Most Frequent Words

Figure 4.17 shows the words that activists used most frequently in their tweets. Female activists tend to focus on gender issues and the situation in Afghanistan, as seen by the prevalence of the terms "Taliban", "women", "Afghanistan", "girl", and "Afghan". Moreover, the use of words like "people", "rights", "school", "Kabul", and "education" demonstrates their interest in broader social and educational concerns. Similar patterns arise for male activists focusing on topics like the Taliban, Afghanistan, women, and girls. They also emphasize the words "education", "school", "Kabul", "Taliban", and "people", suggesting that they are participating in conversations about schools, Kabul, and the Afghan people more generally.

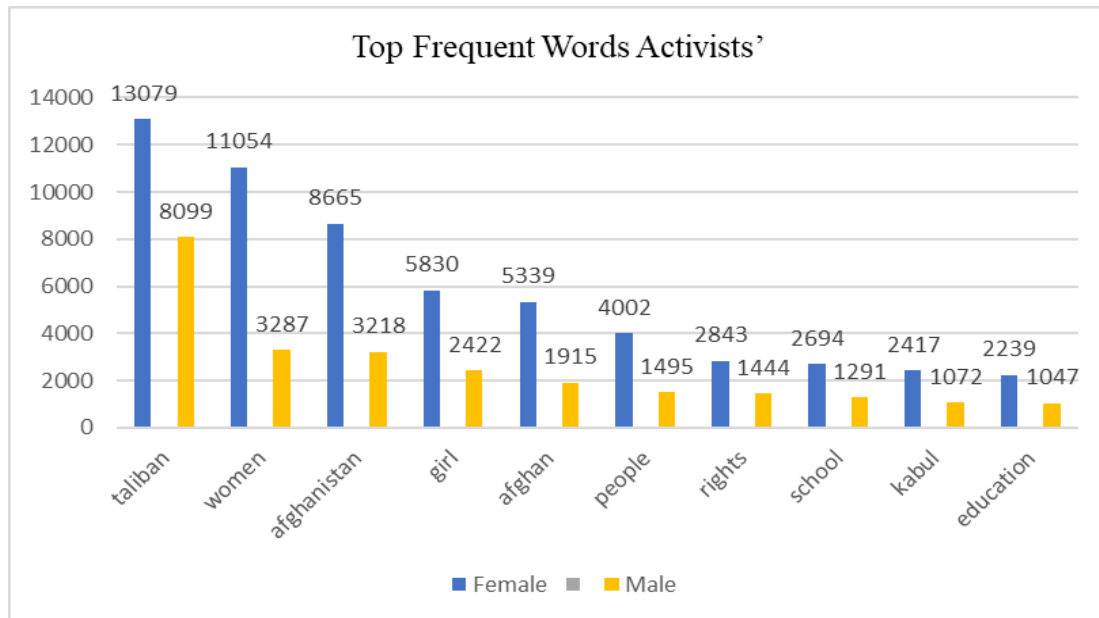


Figure 4. 17: Activists' Most Frequent Words

Figure 4.18, the word cloud for female activists, reveals the main subjects they actively address. It visually represents their involvement in discussions about the Taliban, women's rights, Afghanistan, girls, and education. These prominent terms capture the key themes and issues female activists passionately advocate for, emphasizing their commitment to promoting gender equality and driving positive social change.

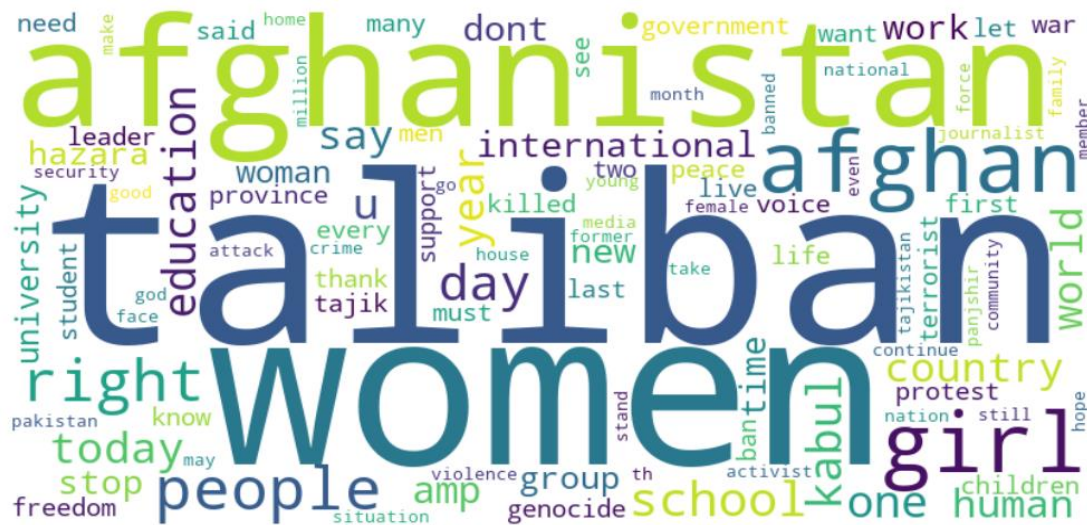
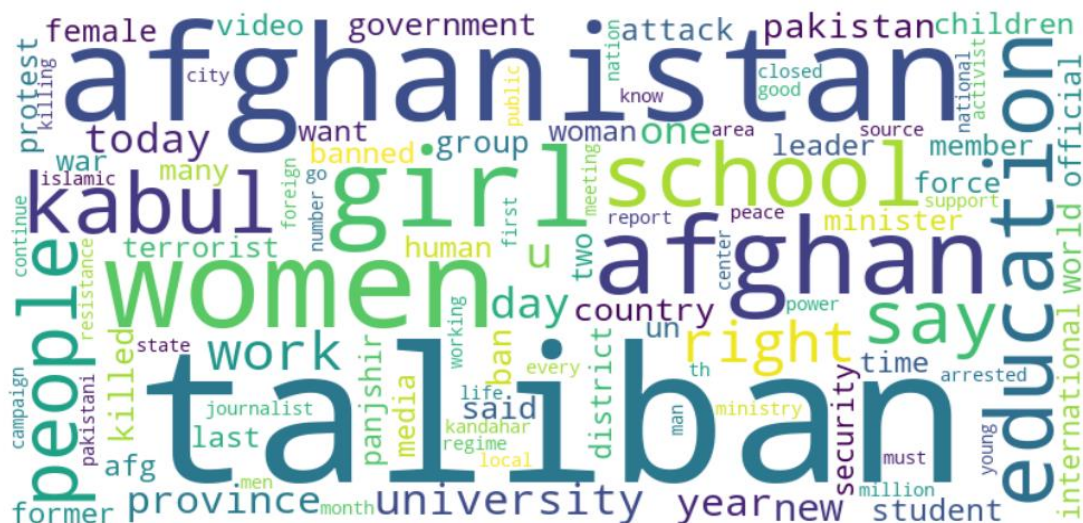


Figure 4.19, the word cloud for male activists, visually presents the key themes they are passionate about. It illustrates their active involvement in conversations related to the Taliban, Afghanistan, women, girls, and education. These prominent terms reflect the specific areas that capture the attention and commitment of male activists, highlighting their significant contributions and dedication to discussing and addressing these crucial topics. The word cloud shows their engagement and dedication to social issues and advocacy.



4.7 Logistic Regression Model

I used logistic regression to explore how different groups see the importance of women's education. I used gender as an IV, with females represented by a value of 1 and males by 0. Using algorithmic methods to combine activist data from men and women, I ensured a computational strategy throughout the investigation. The correlation between gender and women's education is explored in fascinating detail by the logistic regression results. Women (represented by a 1) are more likely than men (represented by a 0) to be in favor of investing in women's education, as indicated by the coefficient for the "female" variable. This finding highlights the critical function of activists in promoting women's education. It underscores the significance of providing women with access to education as a means of achieving gender equality and empowering them. The results of this study shed light on the work of activists to advance women's education and highlight the need for concerted efforts to promote educational equity for all people.

	Coef	Std err	Z	p> z	[0.025 0.975]
Const	-0.5241	0.016	-33.420	0.000	-0.555 -0.493
Female	0.0803	0.019	4.194	0.000	0.043 0.118

Table 4. 9: Logistic Regression (Activists)

CHAPTER V

DISCUSSION

The study discusses women's education from three different views: activists, the Taliban, and the public, and how gender influences activists. The discussion order is as follows, first, the Taliban, followed by the public, and ending with activists. The literature study emphasizes the difficulties women in Afghanistan encounter when trying to pursue an education. Women's access to education is severely hampered by a lack of resources, especially schools, and other issues like poverty, cultural standards, and the lasting effects of war and violence. These problems underline the need to remove the structural obstacles to women's educational prospects (Anderson, Reynolds, Biscaye, Patwardhan, & Schmidt, 2021).

the paper "Re-envisioning the Future: Democratic Citizenship Education and Islamic Education" by Yusef Waghid and Paul Smeyers (2014), it is crucial for the government to take responsibility for guaranteeing equal access to high-quality education for every citizen, regardless of their gender. They further emphasize the importance of fostering a culture of acceptance and hospitality within society, aiming to establish an inclusive and welcoming environment for all students. This is especially significant in the context of women, who often face marginalization in the Arab and Muslim world (Smeyers, 2014).

According to Nouf Alsuwaida (2016), Saudi Arabia stands on Sharia law, and the government in Saudi Arabia has made progress in enhancing women's education. More girls attend school, their literacy rates have improved, and more women are pursuing higher education and joining the workforce. However, challenges such as patriarchal attitudes and limited resources still exist. The government's efforts are commendable but should be more ambitious. Investments in women's education and proactive measures to address remaining challenges are needed. For instance, providing financial assistance to families unable to afford education and promoting changes in social norms like hijab expectations can make a difference. Improving

women's education is crucial as it upholds their rights, empowers them to participate in society and the economy, and promotes equality. While the government's efforts are a step in the right direction, further actions are required to achieve gender equality in education in Saudi Arabia (Alsuwaida, 2016).

Moving our attention back to Afghanistan, it is an Islamic country (Giger, 2002) and one that is today controlled by an Islamic government, the Taliban. The Taliban fought for over two decades to implement the Sharia. Today, that dream has come true, which has caused all women to be banned from schools. The Taliban's ban on women's education is a complex issue with various theoretical explanations. One explanation is that the Taliban's ban is based on their interpretation of Islamic law. The Taliban believe that women should be subordinate to men and that education is not necessary for women. They also believe education can make women more independent and challenge the Taliban's authority. Another explanation for the Taliban's ban is that it is a way of asserting their power over women. By denying women access to education, the Taliban can control their lives and restrict their opportunities.

The Taliban's ban on women's education can also be seen as violence against women. By denying women access to education, the Taliban deny them the right to self-determination and participate fully in society. It is a form of oppression that profoundly impacts women's lives. The Taliban's ban on women's education seriously violates human rights. It is a form of oppression that has a devastating impact on women's lives. The international community must continue to condemn the Taliban's ban and work to ensure that all women in Afghanistan have access to education. In addition to the theoretical explanations mentioned above, there are some practical reasons that the Taliban might have banned women's education.

For example, the Taliban may be concerned that educated women will be more likely to challenge their authority. They may also be concerned that educated women will be more likely to find employment outside the home, which could lead to a decline in traditional gender roles. Whatever the reasons, the Taliban's ban on women's education is a serious human rights violation that must be condemned. The international community must continue to work to ensure that all women in Afghanistan have access to education (Franks, 2003).

It is noteworthy that since the Taliban seized power, they have never been explicit about women's education. They always say they are working to bring Islamic schools that are proper for Afghan women and meet the Afghan cultural requirements. For instance, an official spokesman of the Taliban said on BBC, "We do not have any problem with women's education. Our leaders want to worry about women's safety, and we are working to solve this problem as soon as possible." It's also noteworthy that women have not been able to go to school, university, or even private educational courses for over two years.

The public consists of individuals with unique theoretical views shaped by education, religious beliefs, and cultural backgrounds. Each person's worldview is influenced by their personal experiences and the knowledge they have acquired through education, their faith, and the traditions and customs of their culture. These views vary across the spectrum, reflecting the complex social fabric of Afghanistan. Some embrace the ideals put forth by activists, recognizing the transformative power of education and the imperative to ensure equal opportunities for women. Others, influenced by societal norms and traditional values, may hold reservations or oppose women's education, subscribing to a theoretical framework that reinforces traditional gender roles and norms (Rene, 2010).

In the fight for gender equality and promoting women's education, activists are crucial. They acknowledge that education can empower women, open economic opportunities, and promote financial independence. They engage in various initiatives to question social mores, knock down obstacles, and advance equal access to education (Klenk, 2010). Further, female activists support women's education, pushing society toward equality and emphasizing male and female equality in education.

At the same time, male activists focus more on supporting women financially and making them self-sufficient, as this helps women stand on their feet and not rely on their fathers, brothers, or husbands. Society sometimes welcomes these actions from female activists. And mostly they blame their families, relatives, and the government. Meanwhile, male activists achieved more support from their families and the government because of being male.

CHAPTER VII

CONCLUSION

In conclusion, the discussion on women's education in Afghanistan reveals the contrasting viewpoints and motivations of activists, the Taliban, and the public. Activists emphasize the importance of education as a fundamental right and a catalyst for empowerment, recognizing its ability to challenge societal norms, break oppressive systems, and contribute to communities. The Taliban, rooted in religious fundamentalism and traditional gender roles, perceive women's education as a threat to their established order, imposing severe limitations on access and hindering progress toward gender equality.

The perspectives of the public vary, influenced by factors such as education, religious beliefs, and cultural backgrounds. While some individuals align with activist ideals, advocating for equal opportunities for women, others may disagree with or oppose women's education because of adherence to societal norms and traditional values. This diversity of perspectives contributes to the complexity of the discourse surrounding women's education in Afghanistan.

The hypotheses proposed in this discussion provide expectations based on each group's ideologies and prior behavior. Hypothesis 1 suggests that the Taliban's views on women's education will be significantly more restrictive and opposed than activists and the public. This aligns with the Taliban's history of imposing limitations on women's education and work during their rule in Afghanistan. Hypothesis 2 proposes that activists are more likely to demonstrate greater support for women's education than the Taliban and the public. Activists, driven by the belief in education as a tool for empowerment and social change, view it as vital for women's progress. Hypothesis 3 suggests that female activists are more likely to hold stronger sentiments in supporting women's education than male activists, reflecting a deeper understanding of women's challenges.

This discussion sheds light on the complex dynamics surrounding women's education in Afghanistan, highlighting its importance in challenging gender inequality, empowering women, and driving social progress. Activists play a vital role in advocating for women's access to education and breaking down barriers. They firmly believe that education is a fundamental right for everyone and a crucial tool for building a more equitable and fair society. However, the discussion also brings to the forefront the divergent position of the Taliban, which aims to uphold traditional gender roles and restrict women's education. The Taliban's viewpoint is based on a fundamentalist religious ideology. The clash of views between activists and the Taliban forms a significant part of Afghanistan's women's education struggle.

Moreover, the public's diverse perspectives reflect Afghan society's intricacies. Factors like education, religious beliefs, and cultural values shape individuals' opinions on women's education. While some individuals support equal educational opportunities for women, others adhere to societal norms and traditional values that limit women's access. This diversity underscores the need for nuanced approaches to promote women's education and engage with various segments of Afghan society. In conclusion, this discussion deepens our understanding of the motivations and views driving support for women's education in Afghanistan. Activists advocate for education as a fundamental right and a means of empowering women. Conversely, the Taliban adhere to an ideology restricting women's education and reinforcing traditional gender roles. The public exhibits various perspectives influenced by education, religious beliefs, and cultural backgrounds. Recognizing and addressing these dynamics is essential in formulating strategies and policies that advance women's education and strive for gender equality in Afghanistan.

Exploring the efficacy of community-based education programs in increasing women's education in Afghanistan is one area that could be suited for future research. Women in rural and isolated places face additional obstacles while trying to further their education, and community-based programs may be the key to overcoming these obstacles. Evaluating the effect of community-based initiatives on women's educational attainment may require performing case studies or launching experimental projects.

Women's education promotion strategies, such as program design, community engagement, curriculum creation, and the role of local stakeholders, might all be evaluated in this study. Cultural and social norms' impact on community-based initiatives may also be investigated. And the study might examine how these programs help women overcome obstacles, including early marriage, societal norms, and patriarchal structures, to further their education. The study can potentially inform the development of scalable and sustainable approaches to advancing women's education in Afghanistan and perhaps other contexts facing similar issues by analyzing the efficacy of community-based education initiatives. To further women's education and empowerment in the country, it could also inform policy suggestions and programmatic measures.

A critical weakness in our study pertains to the geographic location aspect. While I tried to consider the users' locations in the analysis, I encountered a significant challenge regarding users from Afghanistan. I intended to examine each group according to their respective locations thoroughly. However, many users concealed their location information, making it exceedingly difficult for us to accurately analyze their tweets based on their geographic origin. The need for available location data for a substantial portion of users poses a notable limitation in our study. It prevents us from conducting a comprehensive analysis of the tweets within the Afghan context, hindering our ability to gain deeper insights into the perspectives and trends specific to that region. Despite this drawback, I earnestly explored other data dimensions to compensate for this limitation. By focusing on other available variables and employing various analytical techniques, I aimed to extract meaningful insights and pay for the need for location data.

It is essential to acknowledge that the absence of user location information is shared on social media platforms. While it hampers the granularity of our analysis, it is a factor that must be considered when working with large-scale datasets gathered from diverse sources. In future studies, addressing the challenge of concealed location data could be explored by employing advanced techniques, such as geolocation algorithms or natural language processing methods, to infer the likely locations of users based on other available contextual information in their tweets. By

acknowledging and accounting for this limitation, I strive to ensure the validity and reliability of the study while also identifying avenues for improvement in future research endeavors.

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Appendix

```
1. import tweepy
2. import pandas as pd
3. consumer_key = 'your_consumer_key'
4. consumer_secret = 'your_consumer_secret'
5. access_token = 'your_access_token'
6. access_token_secret = 'your_access_token_secret'
7. auth = tweepy.OAuthHandler(consumer_key, consumer_secret)
8. auth.set_access_token(access_token, access_token_secret)
9. api = tweepy.API(auth)
10. username = 'twitter_username'
11. tweets = api.user_timeline(screen_name=username, count=100)
12. tweets_list = []
13. for tweet in tweets:
14.     tweets_list.append({
15.         'created_at': tweet.created_at,
16.         'text': tweet.text,
17.         'retweets': tweet.retweet_count,
18.         'favorites': tweet.favorite_count
19.     })
20. df = pd.DataFrame(tweets_list)
21. print(df.head())
```

Appendix 1: Fetch tweets by username

```
1. import pandas as pd
2. tweets_df = pd.read_excel('../data_processed/complete.xlsx')
3. tweets_df = tweets_df.dropna()
4. tweets_df['text'] = tweets_df['text'].str.lower()
5. keywords = ["women", "education", "schools", "study", "learn", "right", "ban", "people",
6.             "afghan", "educated", "girls", "female", "protest", "pashtun", "tajik", "uzbek", "hazara",
7.             "rights", "prohibit", "patriarch", "close schools", "close universities", "university", "man"]
8. matched_tweets = {}
9. for keyword in keywords:
10.     tweets_df['text'] = tweets_df['text'].fillna("")
11.     matched_tweets[keyword] = tweets_df[tweets_df['text'].str.contains(keyword, case=False)]
12.
13. for keyword, df in matched_tweets.items():
14.     print(f"{keyword}: {len(df)}")
15. for keyword, df in matched_tweets.items():
16.     df.to_excel(f'../data_processed/{keyword}_matched_tweets.xlsx', index=False)
```

Appendix 2: Find related data by keywords

```
1. def remove_usernames_links(tweet):
2.     tweet = re.sub("@[^\s]+", "", str(tweet))
3.     tweet = re.sub("http[^\s]+", "", str(tweet))
4.     return tweet
5. df = df.replace(r"\n", " ", regex=True)
6. df["text"] = df["text"].apply(remove_usernames_links)
```

Appendix 3: Remove URL, and mention

```

1. from collections import Counter
2. hashtags = []
3. for row in df['text']:
4.     hashtags.extend([tag.strip("#") for tag in row.split() if tag.startswith("#")])
5. counts = Counter(hashtags)
6. top_tags = counts.most_common(10) # modify topn parameter here
7. fig, ax = plt.subplots(figsize=(12, 8))
8. ax.bar([tag[0] for tag in top_tags], [len(tag[0]) for tag in top_tags])
9. ax.set_title("Top 50 Hashtags with Lengths")
10. ax.set_xlabel("Hashtag")
11. ax.set_ylabel("Length")
12. plt.xticks(rotation=90)
13. plt.show()

```

Appendix 4:Top 10 Trends

```

1. import pandas as pd
2. import re
3. pattern = r'#\w+'
4. df['hashtags'] = df['text'].str.extractall(pattern)[0].values
5. print(df)

```

Appendix 5:Remove Hashtags

```

1. import pandas as pd
2. contraction_map={
3.     "ain't": "is not",
4.     "aren't": "are not",
5.     "can't": "cannot",
6. }
7. def expand_contractions(text):
8.     pattern = re.compile('{{}}'.format('|'.join(contraction_map.keys()))),
9.     flags=re.IGNORECASE|re.DOTALL)
10.     def replace(match):
11.         return contraction_map[match.group(0).lower()]
12.     return pattern.sub(replace, text)
13. text_cols = data.select_dtypes(include=[object]).columns
14. data['text'] = data['text'].apply(lambda x:expand_contractions(str(x)))
15. data.head(5)

```

Appendix 6:Expand Contractions

```

1. import re
2. sample_string = 'This is a sample string with ASCII characters: !@#$%^&*()_+={}[]\|;":<,>./~'
3. clean_string = re.sub(r'^\x00-\x7F+', '', sample_string)
4. print('Original string:', sample_string)
5. print('Cleaned string:', clean_string)

```

Appendix 7: Remove ASCII Characters

```

1. def whitespace(columns_name, text):
2.     data[columns_name] = data[columns_name].replace("", "", regex=True) #remove empty string
3.     data[columns_name] = data[columns_name].str.strip() #remove whitespace
4. whitespace('name', data)
5. whitespace('text', data)

```

Appendix 8: Remove Whitespace

```

1. df.dropna(subset=['text'], inplace=True)
2. df.dropna(inplace=True)
3. df.drop_duplicates(subset=['text'], inplace=True)
4. df[['text']].sample(5)

```

Appendix 9: Drop Null Values

```

1. import string
2. def remove_punctuations(text):
3.     for punctuation in string.punctuation:
4.         text = text.replace(punctuation, "")
5.     return text
6. df['text'] = df['text'].apply(remove_punctuations)

```

Appendix 10: Remove Punctuations

```

1. ct = pd.crosstab([df['ethnic'], df['gender']], df['label'], normalize='index')
2. print(ct)

```

Appendix 11: Contingency Code

```

1. from sklearn.feature_extraction.text import CountVectorizer
2. from sklearn.linear_model import LogisticRegression
3. import numpy as np
4. vectorizer = CountVectorizer(stop_words=stopwords.words('english'))
5. X_train_vectorized = vectorizer.fit_transform(X_train)
6. unwanted_words = ['afghanistan', 'taliban', 'afghan', 'kabul']
7. for word in unwanted_words:
8.     try:
9.         idx = vectorizer.vocabulary_[word]
10.        del vectorizer.vocabulary_[word]
11.        vectorizer._validate_vocabulary()
12.        X_train_vectorized = X_train_vectorized[:, np.arange(X_train_vectorized.shape[1]) != idx]
13.    except KeyError:
14.        pass
15. X_train_vectorized = vectorizer.fit_transform(X_train)
16. lr = LogisticRegression()
17. lr.fit(X_train_vectorized, y_train)

```

Appendix 12: Transforming Textual to Numeric


```

1. from sklearn.metrics import classification_report
2. y_pred = lr.predict(X_test_vectorized)
3. print(classification_report(y_test, y_pred))

```

Appendix 13: Evaluate Performance

```

1. def label_tweets(text):
2.     keywords = ['education', 'school', 'university', 'women', 'girl']
3.     for keyword in keywords:
4.         if keyword in text.lower():
5.             return 1
6.     return 0
7. df = df.copy()
8. df['label'] = df['text'].apply(label_tweets)

```

Appendix 14: Labeling Data

```

1. x = df['text']
2. sentiment_labels = []
3. sentiment_scores = []
4. for tweet in x:
5.     # Create a TextBlob object
6.     blob = TextBlob(tweet)
7.     # Get the sentiment polarity (-1 to 1)
8.     polarity = blob.sentiment.polarity
9.     if polarity > 0:
10.        sentiment = 'positive'
11.    elif polarity < 0:
12.        sentiment = 'negative'
13.    else:
14.        sentiment = 'neutral'
15.
16.    sentiment_labels.append(sentiment)
17.    sentiment_scores.append(polarity)
18. # Add the sentiment labels and scores as new columns in the DataFrame
19. df['sentiment'] = sentiment_labels
20. df['sentiment_score'] = sentiment_scores

```

Appendix 15: Sentiment Analysis

```

2. colors = {'negative': 'red', 'neutral': 'blue', 'positive': 'orange'}
5. sentiment_counts = df['sentiment'].value_counts()
8. plt.figure(figsize=(8, 6))
9. sentiment_counts.plot(kind='bar', color=[colors.get(x, 'gray') for x in sentiment_counts.index])
10. plt.xlabel('Sentiment Category')
11. plt.ylabel('Count')
12. plt.xticks(rotation=0)
13. plt.title('Sentiment Distribution')
14. plt.show()
17. total_counts = sentiment_counts['positive'] + sentiment_counts['negative']
18. print("Sentiment Distribution:", total_counts)

```

Appendix 16: Sentiment Distribution

```

1. women_positive_count = df[(df['gender'] == 'male') & (df['sentiment'] == 'positive')].shape[0]
2. women_total_count = df[df['gender'] == 'male'].shape[0]
3. women_positive_percentage = (women_positive_count / women_total_count) * 100
4. # Print the results
5. print("Positive tweets from taliban:", women_positive_count, "(", women_positive_percentage,
"%)")

```

Appendix 17: Calculate Positive Tweets

```

1. coding_scheme = {
2. 'women': ['women', 'woman', 'female', 'feminine', 'girl', 'lady'],
3. 'education': ['education', 'educational', 'learning', 'academics', 'knowledge'],
4. 'school': ['school', 'classroom', 'teacher', 'students', 'curriculum'],
5. 'university': ['university', 'college', 'higher education', 'academia', 'campus'],
6. 'access': ['access', 'opportunity', 'enrollment', 'attendance', 'entry'],
7. 'quality': ['quality', 'standard', 'curriculum', 'teaching', 'learning'],
8. 'benefits': ['benefit', 'advantage', 'improvement', 'progress'],
9. 'barriers': ['barrier', 'restriction', 'obstacle', 'challenge', 'difficulty'],
10. 'empowerment': ['empower', 'empowering', 'confidence', 'self-esteem', 'agency'],
11. 'gender': ['gender', 'discrimination', 'inequality', 'feminism', 'patriarchy']
12. }
13.
14. # Define a function to apply the coding scheme to each tweet
15. def apply_coding_scheme(text):
16.     codes = []
17.     for code, keywords in coding_scheme.items():
18.         for keyword in keywords:
19.             if keyword in text.lower():
20.                 codes.append(code)
21.     return codes
24. df_edu['codes'] = df_edu['text'].apply(apply_coding_scheme)

```

Appendix 18: Code Scheme

```

1. from nltk.sentiment import SentimentIntensityAnalyzer
2. import nltk
4. sid = SentimentIntensityAnalyzer()
6. for keyword in ['women', 'education', 'school', 'university', 'girl']:
7.     keyword_tweets = df_edu[df_edu['text'].str.contains(keyword)].copy()
8.     keyword_tweets.loc[:, 'sentiment_score'] = keyword_tweets['text'].apply(lambda x:
sid.polarity_scores(x)['compound'])
9.     print(f"Sentiment analysis of tweets containing the keyword '{keyword}':")
10.    print(keyword_tweets.groupby('sentiment')['text'].count())

```

Appendix 19: Analyzing Five Keywords

```

1. from nltk.sentiment import SentimentIntensityAnalyzer
2. import nltk
3. import pandas as pd
6. sid = SentimentIntensityAnalyzer()
9. keyword_sentiments = pd.DataFrame(columns=['Positive', 'Negative', 'Neutral'])
12. for keyword in ['women', 'education', 'school', 'university', 'girl']:
13.     keyword_tweets = df_edu[df_edu['text'].str.contains(keyword)].copy()
14.     keyword_tweets['sentiment_score'] = keyword_tweets['text'].apply(lambda x:
sid.polarity_scores(x)['compound'])
17.     sentiment_distribution = keyword_tweets.groupby('sentiment')['text'].count()
18.     total_tweets = sentiment_distribution.sum()

```

```

21. sentiment_percentage = sentiment_distribution / total_tweets * 100
24. keyword_sentiments.loc[keyword] = sentiment_percentage.values
27. average_sentiments = keyword_sentiments.mean()
30. print("Average sentiment percentages:")
31. for sentiment, percentage in average_sentiments.items():
32.     print(f"{sentiment}: {percentage:.2f}%")

```

Appendix 20: Average Sentiment Percentages

```

1. sentiment_scores = [TextBlob(tweet).sentiment.polarity for tweet in df['text']]
3. t_stat, p_value = stats.ttest_1samp(sentiment_scores, 0)
4. print("Comparison of Sentiment whole tweets:")
5. print("T-statistic:", t_stat)
6. print("P-value:", p_value)

```

Appendix 21: Comparison of Sentiment Whole Tweets

```

1. import scipy.stats as stats
2. from textblob import TextBlob
3. keywords = ['women', 'education', 'school', 'university', 'girl']
5. men_education_tweets = df[df['text'].str.contains('|'.join(keywords), case=False)]
7. sentiment_scores = [TextBlob(tweet).sentiment.polarity for tweet in men_education_tweets['text']]
9. t_stat, p_value = stats.ttest_1samp(sentiment_scores, 0)
11. print("Comparison of Sentiment for five keywords:")
12. print("T-statistic:", t_stat)
13. print("P-value:", p_value)

```

Appendix 22: Comparison of Sentiment Five Keywords

```

1. taliban_education_tweet = df[df['text'].str.contains('women education', case=False)]
2. sentiment_scores = [TextBlob(tweet).sentiment.polarity for tweet in
taliban_education_tweet['text']]
3. t_stat, p_value = stats.ttest_1samp(sentiment_scores, 0)
4. print("Comparison of Sentiment for Women Education Tweets:")
5. print("T-statistic:", t_stat)
6. print("P-value:", p_value)

```

Appendix 23: Comparison of Sentiment on Keyword Women Education

```

1. from scipy.stats import chi2_contingency
2. contingency_table = pd.crosstab(df['gender'], df['label'])
3. chi2, p_value, _, _ = chi2_contingency(contingency_table)
4. print("Chi-square Test of Independence:")
5. print("Chi-square:", chi2)
6. print("P-value:", p_value)

```

Appendix 24: Chi-square Test of Independence

```

1. cross_tab = pd.crosstab(df['sentiment'], df['gender'])
3. print("Cross-Tabulation of Sentiment and Gender:")
4. print(cross_tab)

```

Appendix 25: Cross-Tabulation of Sentiment and Gender

```

1. import matplotlib.pyplot as plt
2. from collections import Counter
4. all_text = ''.join(df['text'].tolist())
6. all_words = all_text.split()
8. word_counts = Counter(all_words)
10. most_common_words = word_counts.most_common(10)

```

```

12. words = [word for word, count in most_common_words]
13. frequencies = [count for word, count in most_common_words]
15. total_frequency = sum(frequencies)
17. percentages = [count / total_frequency * 100 for count in frequencies]
19. fig, ax = plt.subplots(figsize=(10, 6))
21. bars = ax.bar(words, frequencies, color=['orange', 'darkblue', 'darkblue', 'darkblue', 'darkblue',
'darkblue', 'darkblue', 'darkblue', 'darkblue', 'darkblue'])
23. ax.set_xlabel('Words')
24. ax.set_ylabel('Frequency')
25. ax.set_title('Top 10 Most Common Words')
27. plt.xticks(rotation=45)
29. for bar, percentage in zip(bars, percentages):
30.     height = bar.get_height()
31.     ax.text(bar.get_x() + bar.get_width() / 2, height, f'{percentage:.1f}%', ha='center', va='bottom')
32. # Show the chart
33. plt.show()

```

Appendix 26: Frequent Words

```

1. sentiment_counts = df.groupby(['created_at', 'label']).size().unstack()
3. time_periods = pd.to_datetime(sentiment_counts.index)
5. fig, ax = plt.subplots(figsize=(12, 6))
7. ax.stackplot(time_periods, sentiment_counts.T, labels=sentiment_counts.columns)
9. ax.set_xlabel('Time')
10. ax.set_ylabel('Count')
11. ax.set_title('Tweet Frequency Time Series')
13. ax.legend()
15. plt.show()

```

Appendix 27: Time Series

```

1. from wordcloud import WordCloud
2. text = ''.join(df['text'])
4. wordcloud = WordCloud(width=800, height=400, background_color='white', colormap='viridis',
5.                        max_words=100, contour_width=3, contour_color='steelblue',
6.                        prefer_horizontal=0.8, relative_scaling=0.5,
7.                        collocations=False).generate(text)
9. wordcloud.generate_from_text("Afghanistan")
11. wordcloud = WordCloud(width=800, height=400, background_color='white', colormap='viridis',
12.                        max_words=100, contour_width=3, contour_color='steelblue',
13.                        prefer_horizontal=0.8, relative_scaling=0.5,
14.                        collocations=False).generate(text)
15. wordcloud.words_["Afghanistan"] = 80 # Set font size for the central word
17. plt.figure(figsize=(10, 6))
18. plt.imshow(wordcloud, interpolation='bilinear')
19. plt.axis('off')
20. plt.tight_layout()
21. plt.show()

```

Appendix 28: Word-Cloud

```

1. import scipy.stats as stats
2. keyword = 'women education'
4. male_education_tweets = df[(df['text'].str.contains(keyword, case=False)) & (df['gender'] ==
'male')]
6. female_education_tweets = df[(df['text'].str.contains(keyword, case=False)) & (df['gender'] ==
'female')]

```

```

8. male_sentiment_scores = [TextBlob(tweet).sentiment.polarity for tweet in
male_education_tweets['text']]
10. female_sentiment_scores = [TextBlob(tweet).sentiment.polarity for tweet in
female_education_tweets['text']]
12. male_t_stat, male_p_value = stats.ttest_1samp(male_sentiment_scores, 0)
14. female_t_stat, female_p_value = stats.ttest_1samp(female_sentiment_scores, 0)
16. print("Comparison of Sentiment for Men Education Tweets:")
17. print("T-statistic:", male_t_stat)
18. print("P-value:", male_p_value)
19. # Print the comparison results for female tweets
20. print("Comparison of Sentiment for Women Education Tweets:")
21. print("T-statistic:", female_t_stat)
22. print("P-value:", female_p_value)
23. comparison_df = pd.DataFrame({
24.     'Gender': ['Male', 'Female'],
25.     'T-Statistic': [male_t_stat, female_t_stat],
26.     'P-Value': [male_p_value, female_p_value]
27. })
28. comparison_df.head()

```

Appendix 29: Comparison of Sentiment for Men Education Tweets