

Developing Push-Notifications to Enhance User Engagement in an
EdTech Platform in Bangladesh: A Morphosyntactic Study



ULAB
UNIVERSITY OF LIBERAL ARTS
BANGLADESH

Mehzaben Mehnaz

Student ID: 181013042

Department of English and Humanities

Fall 2021

Developing Push-Notifications to Enhance User Engagement in an EdTech Platform in Bangladesh: A Morphosyntactic Study

A Thesis Submitted to
The Department of English and Humanities
University of Liberal Arts, Bangladesh

In Partial Fulfillment
of the Requirements for the Degree of
BA in English

Mehzaben Mehnaz

ID: 181013042

Thesis Supervisor: Tanzia Siddiqua

Fall 2021

CERTIFICATE OF APPROVAL

I hereby declare that this thesis is the student's own work and effort. All sources of information incorporated here have been duly acknowledged. This thesis has been submitted with my approval.

Tanzia Siddiqua

Tanzia Siddiqua

Senior Lecturer

Department of English and Humanities

DECLARATION

This thesis is a presentation of my original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature, and acknowledgement of collaborative research and discussions.

Mehzaben Mehnaz

Mehzaben Mehnaz

ID: 181013042

Department of English and Humanities

Acknowledgements

These four months of my internship has been the most enjoyable experience of my life with full of blessings. With the grace of the Almighty and His blessings, I was given this opportunity that I will cherish throughout my lifetime. I will take a moment to be thankful to my Almighty Allah for the life He has blessed me with.

My workplace has been a warm place which felt like home with people who support like a family and uplift like a friend. This place has given me growth and a handful of wisdom nuggets which has shaped me into a better version of myself. I would like to thank my colleagues and everyone I have come across during this journey because all of these people have a contribution to my internship experience as well as the report itself. The immense support with relevant supply of resources and access has been of great help.

A special thanks to the lady who have not only helped me with my internship report, but has also supported me like a family member in hard times. My heartiest gratitude towards Miss Tanzia Siddiqua who has managed to create magic with the elements I showed up with.

I can never thank my family and friends enough for the endless support and guidance throughout. This journey would not have been possible without my best friends, my parents and siblings who are my strength.

Forever grateful to each and everyone who have even the slightest contribution in making these four months memorable and exciting. A heartfelt thanks to everyone.

Table of Contents

Abstract	7
Chapter ONE.....	1
Introduction	1
Company Background.....	4
Chapter TWO.....	6
Literature Review	6
Chapter THREE	11
Methodology	11
Chapter FOUR	18
Data Analysis and Findings.....	18
The Story of the Researcher: An Analytical Perception	24
Limitations and Recommendations for Future Studies	25
Chapter FIVE	26
Conclusion.....	26
References.....	27

Abstract

The aim of this report is to document the user engagement through Push-Notifications in UX Writing in a Bangladeshi EdTech Platform: 10 Minute School. A copywriter engages the users into a call-to-action with a Morphosyntactic Approach persuading them to take an action to increase user retention. Intending to interact with the users with interactive and conversational words the UX writer, the researcher, engages them into the experience. This study adopts a qualitative research framework that focuses on the users' responses to the push-notifications sent through 10 Minute School's Mobile App. The push-notifications of specific cohorts will be used to analyze the user engagement through an interactive style of UX writing. These notifications, written by the researcher, will be used as a source of data for this report. The push-notifications are written based on situations or cohorts which are precise and crisp that persuades a user to take an action. The morphosyntactic categories of the title of the push-notifications will be analyzed to study the click rates from the push-notifications in order to find out which category-front increases user retention. This study will investigate the morphosyntactic category-front in the push-notification titles of this EdTech platform which is using words or keywords to interact with its users. Words and phrases drive the users to take action. Aiming to establish an understanding of how these copies help UX writers to develop an improved user engagement with their users, this research will introduce effective push-notification strategies that increase user engagement through UX writing in 10 Minute School.

Chapter ONE

Introduction

Background to the Study

Aiming to establish an improved and improvised style of UX writing in Bangladesh's one of the largest EdTech Platform: 10 Minute School, this study will be documenting the push-notification title copies produced to interact with the users through interactive words and phrases that engages the users to take an action and persuade them to continue using their App for a better learning experience. This study aims to investigate the most effective style of developing push-notification title copies with effective keywords which enhances the user engagement in the App and increases user retention.

10 Minute School is Bangladesh's leading EdTech Platform which is teaching millions of students of different age groups aiming to establish an all-in-one platform where they can teach the students from the K-12 segment and also provide courses for other learners to develop their skills in various aspects. The main attraction of this platform are the instructors themselves who have managed the entire country to embrace them as one of the best teachers Bangladesh has proudly induced. Learners, all over Bangladesh, have grown to embrace 10 Minute School as a part of their education system with the engaging and effective EdTech products launched by the team till now. These products provide quality education with quantity where they provide videos, lectures, notes and take quizzes to assess their learning at a much lower cost which makes education affordable for the poor.

Delivering these products to the users and engaging them to take an active role in participating in the user experiences of these products, UX writing plays a vital role in engaging

them to buy these products and take further actions. The micro-copies are aimed to attract the users to the experience, onboards them with the experience and engage them into it. These copies are written not only to attract users but also to transform these users into ‘users who are impressed with the services’ and drawn towards the experience to recommend other users. The organization’s UX writer’s goal is to attract these users with words through advertisements, product branding and landing pages while interacting with the users. The UX content is the main tool to communicate with the users effectively. This needs effective copies which are precise, prompt and engaging. Titles, push-notifications, CTA buttons, positive reinforcement messages, pop-up messages, taglines, SMS notifications, user progress review etc. are used in the form of texts to interact with the user for a better user experience. Effective micro-copies also help the users reach their own goal on time.

The users need a nudge to complete their tasks and reminders on their deadlines to make sure they are having a smooth and valuable experience with the products. Push-notifications act as a nudge for the users to convince and persuade them to take an action. Push-notifications are a form of UX Text Patterns which is a great tool to enhance and boost user engagement and retention. These text patterns are texts that persuade a call-to-action behavior from the user boosting a conversational interaction between the user and the App. Studies have proven that push-notifications generate more click-rates where the users tend to click on the notification driving themselves to a call-to-action with effective UX copies.

Objective of the Study

To identify the most effective UX Text Pattern used in UX Writing for an effective and prompt user engagement while investigating effective category-front in Push-Notification titles to

write interactive copies to engage with users and increase user retention. This study aims to form an effective word structure, a morphosyntactic study, to write copies that attract users to perform an action getting higher click through rates (CTR) using keywords that users find more engaging and interactive.

Scopes and Limitations of the Study

This study is focused on a particular EdTech platform of Bangladesh where the researcher is going to explore how to increase user engagement and retention with the understanding to analyze the morphosyntactic structure of sentences. The study will be conducted with the help of the data, Push-Notifications, produced by the researcher to identify which lexical or non-lexical categories create the most effective copies based on its click rates.

Significance of the Study

This study uses a qualitative framework to analyze the most effective UX Text Pattern used in UX Writing for an effective and prompt user engagement based on the lexical and non-lexical categories of Push-Notification copies and to discuss on developing interactive and engaging microcopies to interact with the users to enhance user engagement in an EdTech Platform in Bangladesh through UX writing.

The research questions of this report were,

- 1) How to produce and develop interactive and engaging Push-Notifications to interact with the users to enhance user engagement in an EdTech Platform in Bangladesh through UX writing.
- 2) What is the use of lexical and non-lexical categories in Push-Notification titles?

In the next section, I will be introducing you to the company I have completed my internship in.

Company Background

The organization, the researcher joined as a Project Executive in, is an EdTech platform originally founded by Ayman Sadiq, a young Bangladeshi entrepreneur, educator and trainer, who, then was a BBA final year student in IBA in 2018 with the passion for teaching and an ambition to teach millions of students in Bangladesh with the help of technology. This organization is a result of hard work from students like Ayman Sadiq who helped the young entrepreneur bring his dreams come true with quality content and brilliant presentation skills. The website was built by another young and talented BUET student, Abyad Raied alone, which came out much more efficient and structured than the young entrepreneurs had expected. Their initial goal was to provide free education for everyone, even to those who do not have a stable internet connection all over Bangladesh. This promising initiative was built upon a set of beliefs such as to learn, practice and progress (*10 Minute School*, 2018).



Envisioning to provide a platform for Bangladeshi students where young minds can learn unconventionally and prepare for their Academics as well as master in Skill development courses to gain knowledge that is extensive, this organization strives to transform education in Bangladesh. Accompanied with success, this organization has faced many challenges. One of the biggest challenges was to find a sponsor that would help the young entrepreneurs make their dreams come

true. Robi Axiata Limited was one of their very first investors who have helped this bunch of talented entrepreneurs take their first step towards revolutionizing education in Bangladesh to unconventional learning experience. From then till January 2022, 10 Minute School was renowned as Robi 10 Minute School and served the nation with affordable K-12 and Skill development courses that has helped many young learners achieve their goals with quality education. In January 2022, this organization earned the ability to call themselves as 10 Minute School with a team that is passionate and hardworking (*Ayman Sadiq & His 10 Minute School - Young Observer - Observerbd.Com*, n.d.).

Bangladeshi newspaper *The Daily Star* on January 16, 2022 Sunday, published the biggest news for Bangladesh's one of the largest EdTech platform, 10 Minute School to be receiving a \$2 million seed funding from an Indian Surge, Sequoia Capital which is India's rapid scale-up program to increase investment in products and technology to bring quality education with more engaging features. The entrepreneur and founder, Ayman Sadiq, adds:

"Sequoia Capital India's Surge joining us as our first investor is a very humbling experience for the team, and it further validates our vision for democratizing access to high quality education for all in Bangladesh," (Hasan, 2021)

Amidst the enormous funding, the team aspires to transform and revolutionize education in Bangladesh with visions to incorporate learning that brings experience with education in the best way possible.

In the next chapter, Chapter TWO, I will be discussing the previous studies and references from similar fields as my research topic.

Chapter TWO

Literature Review

UX writing uses various text patterns to interact with users in a conversational manner for effective user retention. One of the most effective text patterns are Push-Notifications. The intention behind sending push-notifications to users is to increase the user retention where the user stays in touch with the experience. Push notifications act as a reminder for the users to remind them to continue using the experience.

There are various methods to imply in order to increase the user retention rate through an effective user experience. Push Notification is one of the most ‘effective’ ways to gain user retention and enhance user engagement rate. Research shows that the most convenient way to retain user retention is to target the existing users on a priority basis instead of hunting for new users to explore the App. Conveying a nudge to the existing users through Push Notifications are evidently proven to be one of the most effective ways to ‘enhance user retention and user engagement’ in digital marketing. Studies in statistics have shown that incorporating appropriate and constructive Push Notifications can result as an increase in user engagement and app retention rate up to a percentage of 56% and above (Technology, n.d.). Another article by Alite International states an updated statistics of enhancing app retention rates and user engagement shows that due to implementation of concise, interactive and engaging Push Notifications it has increased by 88%. The study adds that 65% of the users has decided to return to using the app within 30 days of the nudge through these interactive push notifications which advocates the fact that sending push notifications has elevated the user retention rate up to 3-10 times effective (“Top 4 Innovative Types of Push Notifications for Customer Engagement,” 2019).

Numerous studies were conducted to understand the role of push notifications in digital marketing in apps. The results are similar in most of the cases which is evident from the fact that push notifications are very convenient for the users to communicate with the UI of an app which makes their user experience even smoother and valuable. Push notifications, evidently, have been observed to grab a user's attention while driving them into a call-to-action in the app (*Mobile Push Notifications*, 2019).

EdTech platforms are established on the belief to transform education in a particular country, city or the world in order to bring a change in the way we learn and how we learn. The rise of EdTech platforms all over the world has revolutionized the education system in many ways to improve the curriculum and spread knowledge with the help of technology and internet which is an available privilege in most parts of the world. These platforms strive to bring a change and transform education for a better tomorrow through online education.

EdTech platforms aim to establish customized and personalized learning according to the user's competency level and proficiency while providing them education which is convenient and budget-friendly ensuring effective learning with user priority. As the article states that EdTech platforms focuses on "...applying digital technology to deliver a new form of learning architecture." (*What Is EdTech and Why Is It Such a Big Opportunity?*, 2015), an EdTech platform focuses on the construction of education with the use of technology and digital platform that ensures learning that is personalized and user-centric with a teacher-centric influenced outline that aspires to achieve the learner's improvement and development.

A Morphosyntactic approach of a study aims to analyze a linguistic component with morphological and syntactic properties. The morphological analysis of a linguistic component is

the ‘study of the structure of a particular word’. Words alone cannot always convey a message properly and are dependent on other forms of words that add meaning to these words. This organization of words is usually known as the sentence structure which is known as a syntactic structure. ‘Syntax’ is the study of ‘sentence structure’ which has different categories like Nouns, Verbs, Adjectives, Prepositions etc. (O’Grady & Archibald, 2016). In order to write effective push-notifications to grab the attention of users and engage into the experience, the sentence structure used to form these copies require an understanding of lexical and non-lexical categories which adds meaning to the push-notification copies.

William O’Grady discusses that words can be classified into a ‘small number’ of classes which are widely known as ‘syntactic categories’ or ‘parts of speech’. This categorization helps us to determine various factors about a sentence. For example: how different forms of words join together to form a meaningful sentence, the affixes these words form into and the various structures in which they can occur. He further adds that word-level categories are the most significant element in the analysis of ‘syntax’. According to Linguists, the four most analyzed ‘syntactic categories’ are noun (N), verb (V), adjective (Adj) and preposition (P) which is usually known as the ‘lexical categories’ that contributes an essential and significant role in the formation of a sentence structure (O’Grady & Archibald, 2016). Similarly, Robert D. Van in his book *An Introduction to Syntax* has discussed that elements like nouns, verbs, adjectives and prepositions which we often refer to as the ‘parts of speech’ of the ‘word classes’ are known as the lexical categories in terms of modern linguistics.

On the other hand, considering the function of these lexical categories and their role in the formation of a sentence, there are other elements which serve to the formation of these sentences but cannot be used independently without the help of these lexical categories such as nouns, verbs,

adjectives etc. As elaborately discussed by O’Grady, these functional categories are linguistically known as the non-lexical categories which includes a determiner (Det), auxiliary verb (Aux), conjunction (Con), and degree word (Deg). According to him, these elements convey meanings that are more complex to be defined and rephrased compared to the functions of lexical categories. For example, as O’Grady discusses, ‘the meaning of a determiner such as ‘the’ or an auxiliary such as ‘would’ is more difficult to describe than the meaning of a noun such as ‘hill’ or ‘vehicle’ (O’Grady & Archibald, 2016).

William O’Grady, in his discussion presents examples of ‘word-level’ categories that are important to analyze the structure of a syntax in this table given below:

Lexical Categories	Examples
Noun (N)	Harry, boy, wheat, policy, moisture, bravery
Verb (V)	arrive, discuss, melt, hear, remain, dislike
Adjective (A)	good, tall, old, intelligent, beautiful, fond
Preposition (P)	to, in, on, near, at, by
Adverb (Adv)	silently, slowly, quietly, quickly, now
Non-lexical Categories	Examples

Determiner (Det)	the, a this, these
Degree word (Deg)	too, so, very, more, quite
Qualifier (Qual)	always, perhaps, often, never, almost
Auxiliary (Aux)	will, can, may, must, should, could
Conjunction (Con)	and, or, but

(O'Grady & Archibald, 2016)

In the next chapter, Chapter THREE, I will be elaborating on the methodology I followed to fulfill my research queries for this report.

Chapter THREE

Methodology

This study is a report on the morphosyntactic analysis of Push-Notification titles from an EdTech platform in Bangladesh where it aims to identify the most effective strategies applied to develop push-notifications that are effective, interactive and engaging to the users of this platform. It investigates the use of lexical and non-lexical categories in Push-Notification titles to establish effective and improved strategies for developing push-notifications in order to increase user engagement and retention. This study adopts a qualitative research framework which aims to collect data from a number of user experiences which reflects on the user retention. The observations based on the user experience, documenting their responses on the push-notifications, would act as a supporting statement on developing the push-notification strategies and morpho-syntactically developed phrases which seem to receive more responses from users. The morphosyntactic categories of the title of the push-notifications will be analyzed using William O’Grady’s theory and others to study the click rates from the push-notifications in order to find out which category-front increases user retention. This study will result in an overall observation with improved strategies and suggestions to develop push-notification copies to enhance user engagement in 10 Minute School, an EdTech platform in Bangladesh.

Data Collection for the Report

The push notification title copies are developed by the researcher as she has worked in 10 Minute School as a copywriter/UX writer during her internship period. These push-notifications, which are used to observe user responses, have been rolled-out to the users in the month of September and October several times, sometimes each copy has been rolled-out more than once.

The study analyzes 15 push-notification titles sent to the users examining the category-fronts of the sentences with a morphosyntactic approach to develop improved and effective push-notification writing strategies aiming to enhance user engagement. The study will establish an observation with the response percentages for each lexical and non-lexical category showing a result of which category has better responses. Each category such as: Noun, Verb, Adverb and Preposition will be listed down to find out the percentage for each category based on their number of responses collected from the CTR (click through rate) data of 10 Minute School. Although the study will be conducting an observation to perceive which category gets more responses, the study will not be able to establish a bar diagram on the category-fronts due to the absence of one category from the list that is yet to be discovered further in the report.

The percentages will show the number of responses on an average for each category to estimate an equal value while observing which category-front collects more responses.

Push-Notification Title Copies	Category-front + Lexical (L)& Non-lexical (NL) (N), (V), (Adv), (A), (P)	Push- Notificat ions Sent	Push- Notificati ons Clicked	Push- Notifications CTR (click through rate)
1. Grab your lessons!	Verb (V), Lexical	1988	150	7.55%
2. Explore exciting contents now!	Verb (V), Lexical	1685	59	3.50%
3. Watch a new video today!	Verb (V), Lexical	634	22	3.47%

4. Watch videos on the go!	Verb (V), Lexical	922	19	2.06%
5. Resume from where you left.	Verb (V), Lexical	405	20	4.94%
6. Explore a variety of interesting subjects!	Verb (V), Lexical	1040	88	8.46%
7. Buckle-up to take today's challenge!	Verb (V), Lexical	445	42	9.44%
8. Presentations approaching?	Noun (N), Lexical	905	19	2.10%
9. Reminder Here!	Noun (N), Lexical	1040	50	4.81%
10. Time is running out!	Noun (N), Lexical	730	15	2.05%
11. Is it a Quiz-Day today?	Non-lexical	740	21	2.84%
12. It's been a while	Preposition (P), Lexical	635	10	1.57%
13. Are you okay?	Non-lexical	735	5	0.68%
14. How about watching a new video?	Adverb (Adv), Lexical	520	10	1.92%
15. Accomplish learning at your own pace!	Adverb (Adv), Lexical	840	15	1.79%

Figure: 1.1 Push-Notification Copies with CTRs (click through rates) in percentage (%)

Figure 1.1 shows the percentages found through users' CTR which are collected from the analytics show that some categories have received more responses than others. To understand the equal value of these categories each, there is another projection of the percentages based on each category below:

- a) 7 Verbs (Lexical category) - 400 responses = $7/400 = 0.02\%$ responses = $39.42/7 = 5.63\%$ CTR
- b) 3 Nouns (Lexical category) - 84 responses = $3/84 = 0.04\%$ responses = $8.96/3 = 2.99\%$ CTR
- c) 1 Preposition (Lexical category) - 10 responses = $1/10 = 0.1\%$ responses = $1.57/1 = 1.57\%$ CTR
- d) 2 Adverbs (Lexical category)) - 25 responses = $2/25 = 0.08\%$ responses = $3.71/2 = 1.86\%$ CTR
- e) 2 Non-lexical category - 26 responses = $2/26 = 0.08\%$ responses = $3.52/2 = 1.76\%$ CTR

Figure: 1.2

As per data retrieved from 10 Minute School Analytics, sentences with a Verb (V) category-front have received the highest response rate from users in the months of September and October. Similarly, the second highest response rate is found to be attained by the category-front Noun (N).

According to Linguistics, a properly organized syntactic structure can form sentences which convey better meanings which are precise, relevant and easily understandable. This structure requires a proper placement of lexical and non-lexical categories together which creates meaning that delivers a message. The push-notifications consist of properly organized syntactic

structures with words that join to create meaningful sentences which includes both lexical and non-lexical categories such as ‘grab’, ‘watch’, ‘reminder’, ‘accomplish’, ‘it’s’ etc. In English, the correct sentence construction order is followed by combining a subject with a verb and an object. However, in these push-notification copies, the structure depends on the actions that the user must take and must be pursued to take. These copies mainly focus on the Verbs (V), that is, the action a company wants their users to perform. Nouns (N), which are lexical categories in word-level categories, can act as a keyword to trigger the user. Such as, ‘presentations’, ‘time’, ‘reminder’, ‘accomplish’ etc. can trigger the user according to specific age groups such as students. Triggering the keywords that the user can relate to, manages to convince the user to take an action. Hence, the amount of clicks in each notification.

The Researcher’s Observations

The researcher started her internship with 10 Minute School on August 16, 2021 Monday which ended in December 2021. This journey has taught the researcher effective ways to adapt an improved writing style for UX writing to construct a better and interactive user experience in 10 Minute School App and website. Alongside, it has taught the importance of a smooth user experience which is solely connected with the UX writing process. This was a huge opportunity for the researcher to bring a change in such a massive platform through small steps which is critical yet a significant part of a platform. The organization has provided training on UX Writing to help the writers develop their writing skills while writing micro-copies, push-notifications etc.

The training procedure acted as a guidance on how to develop effective copies for the push-notifications sent to the users to enhance user engagement. It is a great marketing tool for any App or website. The most useful techniques the researcher had learned were:

- a) Keeping the push-notification copies short and precise with 65 characters for the title and 240-character limit for the body with a message that is intriguing enough to make the user take an action by clicking on it
- b) making sure that the user receives these push notifications at the right time and occasion avoiding inappropriate timings so that it does not annoy the user and make them turn it off
- c) the copies should be clear with a certain quality and must be rare. A monitored number of times should be followed to roll-out these notifications
- d) The copies are user-centric where the first most priority is to incorporate 'Customer Lifestyle' in push-notifications which will provide a personalized user journey throughout, that is, starting from onboarding to setting a user's preferences, to get user retention.
- e) The personalized nudges accelerate the user's completion rate of courses purchased
- f) These push notifications are highly recommended to be used to re-engage with inactive users and gain user retention at a higher rate. Copies like 'We have missed you.' or 'Missing out on something?' are a great way to gain user retention
- g) These push-notifications help the users to reach their goal much faster
- h) Occasional capitalization of specific words facilitates the users with easier scanning while they read the push-notifications from the notification panel. It reminds them to complete an action on time and accentuates on the pending task
- i) The more conversational, interactive and friendly the push-notification copies are, the more it becomes easier for the user to use it and it helps the user make use of the platform that is beneficial to them in real life.

Studies have shown that being clear, helpful, empathic, honest and funny enhances user engagement.

This report documents the most effective ways of writing push notifications with the most effective category-fronts with better responses from users with higher CTRs and user retention. An ample amount of research and study have shown that Verbs (V) comparatively has the higher click through rates (CTRs) from users all over Bangladesh among other lexical and non-lexical categories. The findings from this report also show that lexical categories like ‘grab’, ‘watch’, ‘presentations’, ‘time’, ‘reminder’ etc. tend to receive more responses than non-lexical categories like ‘are’, ‘is’ etc. in terms of push-notification strategy.

In the next chapter, Chapter FOUR, I will be discussing the findings of my report with data analysis along with a critical view of my experience as an intern in 10 Minute School with the limitations and recommendations for future studies.

Chapter FOUR

Data Analysis and Findings

As this report aims to develop push-notifications to enhance user engagement in an EdTech platform in Bangladesh, it is using a morphosyntactic approach to establish data retrieved phrase structures with most effective lexical and non-lexical category-fronts to retain a good amount of response from users of Bangladesh while gaining more user retention through these push-notification copies. The report has been able to collect data with a qualitative approach to identify the click through rates (CTRs) from the push-notifications sent to the users to interact with them and re-engage along with the researcher's observations. In order to write effective push-notification titles that intrigues a user to take an action, the titles are proven to be effective when the category-front of the sentences are usually words with lexical categories and verbs (V) which has collected a significant amount response from the users in Bangladesh with a higher user retention rate.

Lexical categories such as 'explore' (V), 'reminder' (N), 'accomplish' (Adv), 'it's' (P) etc. are seemingly more effective to gain user retention through click through rates (CTRs) as these words tend to have clear and precise meaning to them which conveys a proper message that directs and instructs the user to take an action telling them what may benefit them for the action taken. On the other hand, evidently, non-lexical categories such as 'is' (Aux V), 'are' (Aux V) etc. tend to receive less responses, 1.76% CTR, in comparison to lexical categories as these words fail to convey a proper message that is concise and meaningful and therefore fails to make the user take an action faster as soon as the user reads the message from the title. However, using non-lexical categories does not create a negative impact on the users as evidence shows a certain number of

clicks on them. Lexical categories direct towards a more relevant and timelier message for the user to click on and fulfills its purpose to gain a higher retention rate.

The findings of this report shows that the use of Verbs (V) as the category-front in phrases and sentences tend to enhance user engagement by receiving more responses from the users. However, it is not possible for the researcher to alter the data and hence the number of Verbs (V) used on the push-notifications is significantly higher than the number of Nouns (N) used in the push-notifications. There were 7 Verbs from 7 different push-notification titles which gained 5.63% CTRs (click through rates) from the push-notification roll-out whereas only 3 Nouns (N) in 3 different push-notifications were rolled-out to the users. The click through rate of the Nouns (N) in these push-notification roll-out was 2.99% which has a higher value of 0.04% responses from the users whereas, Verbs (V), which has a higher CTR (click through rate), has 0.02% response value from the users. Therefore, in terms of value for each Noun (N) and Verb (V), Noun (N) tends to have a higher response value from the users. This calculation shows the equal value for each category-front helping us to understand the response rate between categories. This shows that the Noun word-level category-front has evidently collected the most amount of response from the users. The response values & CTRs for Preposition (P) and Adverb (Adv) are 0.1% (response value) & 1.57% (CTR) and 0.08% (response value) & 1.86% (CTR) respectively.

As per findings, the individual category which has received more response from the users are listed with their individual response value and CTR percentages:

Verb (V) = 0.02% response value; 5.63% CTR
Noun (N) = 0.04% response value; 2.99% CTR
Preposition (P) = 0.01% response value; 1.57% CTR
Adverb (Adv) = 0.08% response value; 1.86% CTR
Non-lexical category = 0.08% response value; 1.76% CTR

In the push-notification roll-out, 2 Adverbs (Adv) were sent to 1,360 users among which only 25 users had responded to the push-notifications while the remaining 1,335 users had dismissed the notifications. Hence, the response rate in terms of individual category is higher than the other categories where, for example, 400 users have responded to the push-notifications which had a Verb (V) category-front which shows that more respondents had responded to the Verb among all the remaining categories. Similarly, Noun (N) had only 84, Preposition (P) had 10 and non-lexical categories had 26 responses as shown in Figure 1.2.

The report could not study any data with Adjective (Adj) category-front as the EdTech platform have not used any adjectives in their push-notification titles in the month of September and October when these push-notifications were being sent to a set of users with specific cohorts. Hence, this report will not be presenting any bar diagram which can show a response rate among the lexical category-fronts of these push-notification titles. The use of adjectives acts more like a

positive reinforcement towards the users and can be used in the push-notification bodies with an elaborative message.

The researcher's experience in 10 Minute School as a copywriter/UX writer, have brought a proper knowledge to write in a more conversational and interactive manner as most users prefer a personalized and friendly interaction in their user journey which enhances the user experience and engagement while gaining an increased rate of retention. Micro copies and push-notifications must have a clear and concise message which the user should find easier to interact with on a daily basis, maintaining a user experience that allows the user to experience a smooth and easy user journey with the App or platform is what the researcher has learned to aim for with the copies.

As per the researcher's opinion, adding adjectives in push-notifications can re-engage with the user well enough to bring an inactive user back to the platform and resume their learning journey.

For example: with a cohort such as 'The user has bought courses both from Skills and K-12 segments and have completed 70-80% of most of the courses. However, the user has been inactive for the past 3 weeks. The user must be positively reinforced to re-engage with our platform'. The target is to bring back the user and re-engage the user into the experience with a positive reinforcement that would encourage them to return to the platform and sincerely complete the incomplete courses. The nudge from the platform should be a push-notification that reminds the users of its wonderful journey and revives the user active to the platform with a high-spirit. The title of the push-notification may look like: 'Good job! You've come a long way.' followed by a body: 'Get back at learning and take

one step forward towards reaching your goal’. This title may retain a response from the user as this copy is encouraging the user to complete learning and at the same time reminds the user of how well he/she has been doing which acts as a positive reinforcement for the user.

As studies have shown so far, the most effective way to engage a user to take an action is an effective title of a push-notification as this is the text that a user reads first and it should grab the user's attention. According to researchers, the retention rate and a successful user engagement occurs when these titles are:

- a) ‘Funny’ yet relevant which brings a smile on the user’s face
- b) Inquisitive to create a sense of ‘curiosity’ among the users to see what’s next
- c) An ‘urgency’; creating an urgency creates a sense of a requirement to act immediately on what the notification tells you to do:

For example: ‘Time is running out!’ from Figure 1.1 shows an urgency for the user to click on the notification. On the other hand, it creates a sense of curiosity in the user to find out what he/she is running out of time for. (*50-Best-Examples-Of-Push-Notifications-v2.Pdf*, n.d.)

Studies have shown that, as great of a marketing tool and effective way to reach out the users, there is evidence which has proven the fact that push notifications can cause annoyance to some people if not sent at the right time and right occasion with useful information and offers. Maintaining a right time and amount, that is, quality is a significant part of sending push-notifications. Research shows that 47% of the users restrict push-notifications on their device while on the other hand, the remaining 52% of the crowd enjoys receiving them. Effective push-

notification titles must target a number of users with a similar history and demands which is known as ‘personalized’ nudges which should be relevant conveying precise messages that are meant for the user and are helpful to the user that are easy to understand. The users must be encouraged to click on the notification to continue an experience with the platform, therefore, the titles and the bodies of the push-notification must encourage the user to continue. Texts like ‘Enjoying your videos?’ might make the user feel important and intrigued to continue watching videos that can teach him at the same time. (*10 Hacks for Writing Best Push Notifications Copy*, 2018)

Incorporating keywords that intrigues the user’s interest might evoke a user’s excitement to tap on the push-notifications with the urge to know more. According to the findings of this report, in Figure 1.1, the users are more drawn towards words that push them to act immediately. Verbs such as ‘explore’, ‘grab’, ‘watch’, ‘resume’ and ‘buckle-up’ are found to be more intriguing to the users which made them take the action increasing the click through rates of push-notification copies. Such words that carry a proper meaning and convey a precise message are evidently proven to receive more responses from the users in Bangladesh.

The user conversion rate of 10 Minute School’s platform has increased by 4.68% in the month of September. The previous conversion rate was 37.42% before September, by September end, the conversion rate increased to 42.1%. In the month of November, the conversion rate increased by a percentage of 5.8% due to the push-notification nudges. These notifications have encouraged the users to watch the videos and have increased the conversation rate by 3.63% in the quarter these push-notifications we rolled-out. The conversion rate was 62.44% in the previous quarter and it has increased to 66.07% in this quarter (September, October & November).

The Story of the Researcher: An Analytical Perception

To sum up my journey, it was a roller-coaster ride with many turns of events where it was exciting to meet new people, survive and stand out in a crowd that has many talented faces yet a very challenging experience where it required an ample amount of energy to stand out with the quality of work. From managing to survive in an environment which requires one to prove his worth in every possible task to surviving with quality driven deliverables was quite a task to fulfill in these four months.

This organization was at its rising peak when I joined as a Project Executive in the Product team where my major responsibilities was to develop UX copies for the App and website simultaneously. I have tried to bring a significant number of improvements in the UX copies to fulfill the purpose of it with ample amount of research and insights from the training received. The modification and refinement of the developed copies has significantly brought a rise in the user retention and user engagement rate which has managed to increase the interaction among the users and the platform. As per UX writing requirements, it is important to have texts that are user friendly and easily understandable to interact with the users. Incorporating precise, clear and engaging push-notifications has significantly raised the user retention rate with an increased activation rate in 10 Minute School's App and website.

As an individual, I have grown as a stronger and confident individual who is eager to learn from mistakes and bring improvements in my performance and deliverables as I continue to work here as an Executive. This workplace has given me the opportunity to develop as a corporate individual who has learnt to survive difficult situations and handle corporate circumstances with a

proper sense of leadership and ownership. Critical to elements that need to be fixed, I would love to continue working here to bring changes that, in my opinion, require a fresh approach.

Limitations and Recommendations for Future Studies

This report has documented the responses received from the users on the researcher's push-notifications which has a data driven approach to evaluate which morphosyntactic approach is successful to re-engage with the users of Bangladesh through push-notifications increasing the user retention. However, the study lacks in evaluating the effectiveness of the lexical category such as, Adjectives (Adj) in the push-notification titles due to the absence of certain cohorts. The researcher aims to track and evaluate the responses on adjectives as a category-front in push-notification titles to establish a bar diagram to investigate which category-front receives the greatest number of responses in future as she continues to improve push-notification copies to increase user retention and engagement.

This report should help any UX writer to develop effective push-notification copies with effective keywords in future and gather an idea on how to develop push notifications that grasps a user's attention.

In future, if anyone is interested in carrying out a similar project or research, this paper may help the researcher with their aims and objectives. There are room for improvements and suggestive opportunities which might result in an even better study on a similar topic to enlighten young minds with the necessary knowledge to work in this area.

In the next chapter, Chapter FIVE, I will be concluding my internship report with a conclusion of this research.

Chapter FIVE

Conclusion

The researcher has attempted to develop effective push-notification copies with UX writing skills to enhance user engagement in 10 Minute School, an EdTech app in Bangladesh which teaches millions of students a day, in this report. The study adopts a qualitative framework to examine the push-notification titles with a Morphosyntactic Approach to establish improved and effective phrase structures of the titles to make the user engagement more interactive and conversational, building a smoother and easier user experience. This study is an observation on the morphosyntactic category-front in this EdTech platform's push-notification titles and keywords used to engage with users. Aiming to understand how these copies help UX writers develop better user engagement with their users, this study introduces effective writing strategies that increase user engagement through UX writing in 10 Minute School.

References

1. *10 Hacks for Writing Best Push Notifications Copy*. (2018, November 14).
<https://www.omnikick.com/push-notifications-copywriting/>
2. *10 Minute School: Learn, Practice, Progress - SDAsia*. (2018, April 6).
<https://web.archive.org/web/20180406230019/https://sdasia.co/2015/06/20/10-minute-school-learn-practice-progress/>
3. *50-Best-Examples-Of-Push-Notifications-v2.pdf*. (n.d.).
4. *Ayman Sadiq & his 10 Minute School—Young Observer—Observerbd.com*. (n.d.). The Daily Observer. Retrieved January 20, 2022, from
<https://www.observerbd.com/details.php?id=80508>
5. Hasan, M. (2021, December 1). *10 Minute School raises \$2m seed funding*. The Daily Star. <https://www.thedailystar.net/tech-startup/news/10-minute-school-raises-2m-seed-funding-2940201>
6. *Mobile push notifications: The key to app retention*. (2019, October 10). Pushwoosh Blog. <https://blog.pushwoosh.com/blog/app-marketing-with-push-notifications/>
7. O’Grady, W., & Archibald, J. (Eds.). (2016). *Contemporary linguistic analysis: An introduction* (Eighth edition). Pearson.
8. Technology, T. (n.d.). *Push Notifications to Improve Mobile App Users’ Engagement and Retention Rate*. TP&P Technology. Retrieved December 7, 2021, from
<https://www.tpptechnology.com//blog/mobile-application-development-push-notifications-for-app-users-engagement-and-retention/>
9. Top 4 Innovative Types of Push Notifications for Customer Engagement. (2019, June 24). *Alite International*. <https://alite-international.com/top-4-most-innovative-types-of->

push-notifications-for-maximizing-customer-engagement/

10. *What is EdTech and why is it such a big opportunity?* (2015, June 5). HotTopics.Ht.

<https://hottopics.ht/14731/what-is-edtech-and-why-is-it-important/>