

## SAMPLING TECHNIQUE LOGS: LEARNING TYPE OF SAMPLING TECHNIQUE

\*Mohamad Aqil Abd Hamid<sup>1</sup>, Nor Akma Shahira binti Azman<sup>2</sup>, Nurul Hidayana Mohd Noor<sup>3</sup>

<sup>1,2</sup> Faculty of Administrative Science and Policy Studies, Universiti Teknologi MARA, Shah Alam, Malaysia

<sup>3</sup> Faculty of Administrative Science and Policy Studies, Universiti Teknologi MARA, Seremban, Negeri Sembilan

\*Corresponding author's email: mohamad.aqil1996@yahoo.com

### ABSTRACT

Visualization is one technique of dealing with large volumes of information. Infographics can convey information about a topic more quickly and efficiently rather than plain text. SAMPLING TECHNIQUE LOGS is a set of learning exercises that employs QR codes and online quizzes to provide students, lecturers, and practitioners with a rapid and base knowledge about the sampling approach available in the research field. The main goal of this graphic visual is to improve learners' understanding of sampling techniques and the different types of sampling techniques accessible. Lecturers and students can use innovative ideas as teaching and learning tools. It also helps new students and practitioners, such as researchers in the field of study, by serving as a rapid reference guide. Furthermore, in the period of the Covid-19 pandemic, this innovative idea is believed to make teaching and studying Research courses easier, remembering, and faster, particularly during online distance learning.

**Keywords:** Sampling Technique, QR Code, Online Quiz, Teaching, Learning

### 1. INTRODUCTION

A simple note could play a vital role for everyone to gain a better understanding of what they have learned (Leeds, 2021). In addition, making simple notes will help to boost an individual's understanding and memory. People who engage in material that they are trying to learn usually gain a deeper level of comprehension that could improve their performance (Dunlosky, Rawson, Marsh, Nathan, & Willingham, 2013). Most people preferred to study with visual materials rather than books or other types of traditional materials (Leeds, 2021). One of the simple notes that have been used by people is infographics. Almost all students had a positive opinion about infographics. Therefore, based on the significant change in the method of accessing information that has influenced the format of presenting information for the digital generation, nowadays, visual knowledge resources with brief textual detail are more preferred.

In the modern world, the growing intensity of knowledge and data and having easy access to the data can cause people to bombard an accurate selection of helpful information. Therefore, one of the useful and effective materials which can solve the problem is infographics. The creation process of infographics includes data visualization; design of information or architecture of information and it became popular in social media as static images or a simple web interface, covering any number of subjects (Bicen & Beheshti, 2019). The information is shared between users of social networks such as Twitter, Facebook, Instagram, and Pinterest. In education, infographics are used to illustrate complex information in a compact form. To enhance students' visual communication skills, it can be required to design an infographic based on their visual knowledge and skills such as thinking, learning, and expression. Hence, infographics can be used as an alternative tool and also make students be able to illustrate their highest achievements in education (Cheng, Leung, & Lau, 2021).

The creation of the SAMPLING TECHNIQUE LOG aims to help student boost their understanding regarding sampling techniques and knowledge to choose what type of sampling technique that relevant to use during conducting research. SAMPLING TECHNIQUE LOG consists of two types of sampling technique which are probability sampling technique and non-probability sampling technique. Each type of sampling technique consists of several kinds of techniques with their definition, advantages, and disadvantages. Through this infographic note, readers can differentiate each sampling technique stated in the notes such as snowball, stratified, systematic, and convenience. By using QR Code, people can access this infographic information everywhere without sharing any personal information such as contact number and email. Accessing notes via QR Code is the easiest way and saves time as readers can scan by using their smartphone anytime they want to.

## 2. MATERIALS AND METHODS

SAMPLING TECHNIQUE LOGS presented to the user, who could be a student, lecturer, or researcher. It has been introduced to those who are studying research methodology principles. SAMPLING TECHNIQUE LOGS can be used by students at all levels in a variety of settings, including the classroom and online. As a teaching-learning strategy, lecturers can use SAMPLING TECHNIQUE LOGS. SAMPLING TECHNIQUE LOGS are used to describe the various types of sampling techniques that are available. The students must scan a QR code to retrieve an infographic on the Sampling Technique. With the QR Code, users also can take a quick online quiz. A sample infographic called "SAMPLING TECHNIQUE LOGS" is shown in Figure 1. This infographic can help students understand the various sampling techniques and how they differ from each type. Infographics could also be used to help students focus their attention while reading or doing other assignments. To prepare for a group discussion, students could be given a short article to read and an infographic to look at.



Figure 1. Sample Infographic SAMPLING TECHNIQUE LOGS

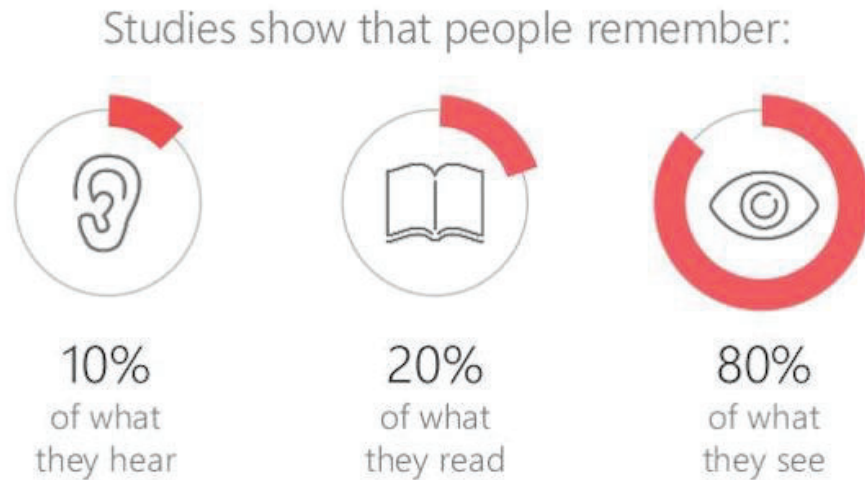
## 3. RESULTS AND DISCUSSION

There is a good probability that written or vocal instruction alone would not get straight to the point, no matter what type of information people are trying to convey. After all, not everyone can effectively digest words, and the average individual is more likely to forget written or verbal communication than visual information. According to the study, visual aids are crucial in the educational system and used in classrooms to encourage students' learning and make it easier and more interesting for them (Shabiralyani, Hasan, Hamad, & Iqbal, 2015). Visualization is the most effective tool for effective

teaching and knowledge dissemination. Thus, no doubt that infographics have a stronger influence on improving understanding of knowledge.

**Figure 2. Studies reveal what people remember based on the learning method**

Pilot studies have been conducted to test the reliability of this project which is by the distribution of online quizzes to the sampled audience which consists of fellow students with zero knowledge regarding sampling technique. Table 1 summarizes the post-test results after the application of SAMPLING TECHNIQUE LOGS.



Questions	Student Score
1) Four Correct Type of Probability Sampling Technique	All of 40 Students Obtained Full Marks
2) Cluster Sampling is one of the Probability Sampling Techniques, which is?	38 Out of 40 Obtained Full Marks
3) What Is the Correct Definition of Systematic sampling?	38 of 40 Students Obtained Full Marks
4) What Is a Correct Example for Purposive sampling?	All of 40 Students Obtained Full Marks
5) Four Correct Type of Non-Probability Sampling Technique	38 of 40 Students Obtained Full Marks
6) Which Is the Correct Statement for Probability Sampling Technique?	38 of 40 Students Obtained Full Marks

**Table 1. Online Quiz and Score Obtained**

#### 4. CONTRIBUTION AND USEFULNESS/COMMERCIALISATION

SAMPLING TECHNIQUE LOGS could contribute to commercialization as it is useful to readers especially students who are doing their research papers. It is in line with digital development nowadays. The learning method of infographics could be spread and easy to access by scanning the QR Code. This product also can be used by both students and lecturers during the learning and teaching process. The

notes regarding sampling methods are often explained in wordy ways in textbooks that seem boring and difficult to understand. Since there is a lack of exposure to choosing sampling techniques, this potential for the commercialisation of this product is bright and good.

## 5. CONCLUSION

Infographics are some of the most effective and efficient ways to communicate with an audience. The study of sampling techniques is a fascinating subject, but it necessitates a vast amount of information and data. As a result, lecturers must find a way to balance the information overload. SAMPLING TECHNIQUE LOGS includes an infographic with a QR Code and a brief online quiz to test student knowledge, given their ability to generate influential bursts of insight and knowledge.

## ACKNOWLEDGEMENT

The authors would like to thank and appreciate everyone who took part in this study. The authors declare that there is no conflict of interest in publishing this paper.

## REFERENCES

- Bicen, H., & Beheshti, M. (2019, August 13). The Psychological Impact of Infographics in Education. *Broad Research in Artificial Intelligence and Neuroscience*, 4(8), 99-108. Retrieved September 5, 2021, from <https://www.researchgate.net/publication/335137517>
- Cheng, M., Leung, M. L., & Lau, J. C.-H. (2021, August 10). A review of growth mindset intervention in higher education: the case for infographics in cultivating mindset behaviors. *Social Psychology of Education*. doi: <https://doi.org/10.1007/s11218-021-09660-9>
- Dunlosky, J., Rawson, K., Marsh, E., Nathan, M., & Willingham, D. (2013). Improving Students' Learning with Effective Learning Techniques: Promising Directions from Cognitive and Educational Psychology. *Psychological Science in the Public Interest*, 14(1), 4-58. doi: DOI: 10.1177/1529100612453266
- Leeds, U. o. (2021). *Note Making Explained*. From Note Making: <https://library.leeds.ac.uk>
- Shabiralyani, G., Hasan, K. S., Hamad, N., & Iqbal, N. (2015). Impact of Visual Aids in Enhancing the Learning Process Case Research: District Dera Ghazi Khan. *Journal of Education and Practice*, 6(19), 226-233. Retrieved September 6, 2021, from <https://www.iiste.org>