

## **A STUDY ON MICROLEARNING ON EMPLOYEE ENGAGEMENT AND KNOWLEDGE RETENTION At BIOLOGICAL E LIMITED HYDERABAD** **KARPURAPU GOWTHAM**

**II MBA, Department Of MBA, Malla Reddy Engineering College(A) , Hyd, Email:**  
**gowthamkarpurapu1@Gmail.Com**

**Dr. M. Nagabhaskar**

**Associate Professor, Department of MBA, Malla Reddy Engineering College (A), Hyderabad,E-**  
**Mail:Drmuppuri@Gmail.Com**

### **ABSTRACT**

Effective staff training is essential for promoting engagement and keeping top talent in the fast-paced business environment of today. This study examines how microlearning affects these important factors, paying particular attention to the difficulties in measuring and monitoring employee involvement. Participants in the study were evenly distributed by gender and were primarily young adults (18–24 years old), providing insightful information from a generational perspective. Weekly engagement was found to be the most common frequency, followed by thrice weekly, daily, and monthly engagements. In order to provide insights into demographic profiles, sentiment trends, and engagement patterns, the study uses SPSS for descriptive frequency analysis. These results are important for developing tactics to improve interaction, improve communication, and match projects to the interests and actions of the intended audience.

**Key Words:-** Micro-learning, Employee Engagement, Knowledge Retention, Descriptive Frequency Analysis.

### **1. INTRODUCTION**

Long instructional sessions intended to cover a wide range of topics were the foundation of traditional training and development approaches in the past. This resulted in issues like learner disengagement and ineffectiveness in meeting individual learning needs. But in recent years, learner-centered, more adaptable techniques have become increasingly prevalent in the training and development scene. With its ability to present knowledge in manageable chunks that fit well into the hectic schedules of contemporary professionals, microlearning has become a groundbreaking technique. Even if microlearning is becoming more and more popular, thorough research on its efficacy is still severely lacking. In order to completely comprehend the consequences and efficacy of microlearning, further in-depth research is clearly needed. Subsequent research endeavors ought to focus on investigating diverse facets of microle

arning, such as its influence on diverse populations, its efficacy across diverse sectors, and its capacity to promote sustained retention and ongoing education.

## 1.1 NEED OF THE STUDY

The company had originally planned to launch a bitesized learning program, but it was unable to measure and monitor employee engagement reports, so the idea was shelved. The researcher has made the decision to investigate the idea of using microlearning to improve employee engagement and retention. The study aims to explore how structured and measurable microlearning interventions can influence employee engagement levels and contribute to improved retention rates at Biological E. Limited. The research will also seek to provide actionable insights into how digital learning tools and analytics can support the successful implementation of such programs.

## 1.2 SCOPE OF THE STUDY

### 1 planning

- Determine the needs for learning and match objectives with content.
- Make sure there is enough money, time, and staff.
- Obtain backing from management and stakeholders.

### 2. material Creation:

- Produce interesting, pertinent material.
- Assure content competence and correctness.  
To keep students interested, use a variety of content formats.
- Produce top-notch content on short notice.

### 3. Using WhatsApp and emails for implementation

- Address the constraints on engagement and content delivery.
- Ascertain that all staff members have access to the required technologies.
- Refrain from bombarding staff with too many mails.

## 1.3 OBJECTIVE OF THE STUDY

- To look into worker involvement.
- To assess the retention of knowledge.
- To gather recommendations for enhancing microlearning

## Research Hypothesis

**H0:** It is anticipated that the use of microlearning will raise employee engagement in a quantifiable way.

**H1:** It is expected that microlearning interventions will greatly enhance knowledge retention.

## 2. REVIEW OF LITERATURE

1. **Hiep-Hung Pham et.al**, Science mapping the knowledge base on micro learning: using Scopus database between 2002 and 2021, *Journal of Research in Innovative Teaching & Learning*, (28 March 2024). The study finds that there has been a significant increase in micro learning publications, mostly in the form of conference papers
2. **Kohnke et.al**, Micro learning: A new normal for flexible teacher professional development in online and blended learning. *Educ Inf Technol*, (06 July 2023) . The study used quantitative survey data and interviews with participants who experienced micro learning. The study found that micro learning provides flexibility, reduces stress, and enables teachers to focus on immediate tasks, which improves their digital growth.
3. **Conde-Caballero et.al**, Micro learning through TikTok in Higher Education. An evaluation of uses and potentials. *Educ Inf Technol*, (02 June 2023). The research employs TikTok-based learning environments and assesses user perceptions and technology acceptance. The results indicate high levels of satisfaction and acceptance of the technology, with positive feedback on engagement, content quality, and motivation
4. **Gorham.T et.al**, Analyzing learner profiles in a micro learning app for training language learning peer feedback skills. *J. Comput. Educ.*( 06 March 2023). The study used convenience sampling and a quasi-experimental design, where Japanese university students used Pebasco to practice their peer feedback skills. The app's usage data revealed five behavioral profiles, indicating that many participants improved or maintained desirable patterns of behavior and outcomes.
5. **Haghighat.H et al**, The effect of micro learning on trauma care knowledge and learning satisfaction in nursing students. *BMC Med Educ*, ( 01 September 2023). The study involved 30 final-year nursing students from Alborz University of Medical Sciences, who underwent a 36-day micro-learning intervention delivered through whiteboard animations, video casts, and live videos.
6. **Zainab Akbar et.al**, Development and validation of an instrument to measure the Micro-Learning Environment of Students *BMC Medical Education*, (31 May 2023). The instrument was developed

to fill a gap in existing tools. A mixed-methods approach was used, which combined literature review, semi-structured interviews, and focus group discussions to create a questionnaire.

### 3. RESEARCH METHODOLOGY

The basic principle in the research has been adopted in the overall methodology. The following methodology has been used for meeting the requirements,

#### 3.1 Sources of data:

**1. Primary Data Collection:** The investigator has conducted a survey (Google Form) that will be administered to gather employees' perceptions and experiences with micro learning, focusing on engagement, job satisfaction, and retention factors.

**2. Secondary Data Collection:** The investigator has conducted a literature review of academic journals, industry reports, and reputable websites to gather existing knowledge and data on micro learning and its impact.

**3.2 Sample Technique :** Mixed-Method approach

**3.3 Sample Size:** 100

#### 3.4 LIMITATIONS OF THE STUDY

- The study's main focus will be on how microlearning affects engagement and retention in the near term.
- The training program was unknown to the staff.
- Aside from the microlearning program, external variables including organizational reorganization, market conditions, and economic shifts may have an effect on employee engagement and retention.

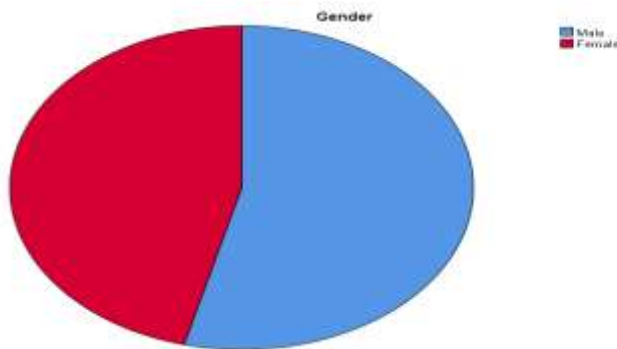
### 4. DATA ANALYSIS AND INTERPRETATION:

Delving into the data, this chapter reveals patterns and trends, which the investigator has interpreted to reach conclusions that align with our research goals.

#### Table 4.1.1

The table displays the responses by gender within the organization.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	54	54.0	54.0	54.0
	Female	46	46.0	46.0	100.0
	Total	100	100.0	100.0	



**Figure - 4.1.1**

**The figure shows the response the Gender in the organization**

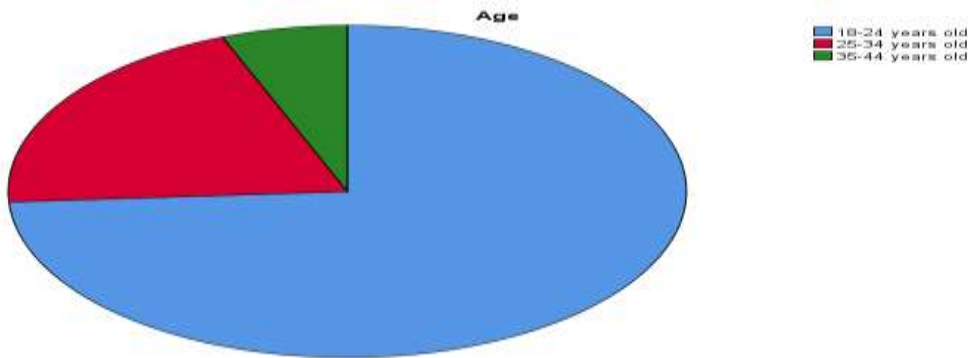
The pie chart shows the gender distribution in the sample population. There are 54% males and 46% females out of 100 individuals in the sample. This nearly equal gender distribution can be useful for studies requiring gender balance.

**Table .4.1.2**

**The table illustrates the distribution of responses across different age categories within the organization.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24 years old	74	74.0	74.0	74.0
	25-34 years old	20	20.0	20.0	94.0
	35-44 years old	6	6.0	6.0	100.0
	Total	100	100.0	100.0	





**Figure - 4.1.2**

The figure shows the response to the age category in the organization

The pie chart displays the age distribution of a sample population with 18-24 years old constituting 74%, 25-34 years old at 20%, and 35-44 years old at 6%. This indicates a predominantly young sample population, with a focus on individuals aged 18-24.

**Table 4.1.3**

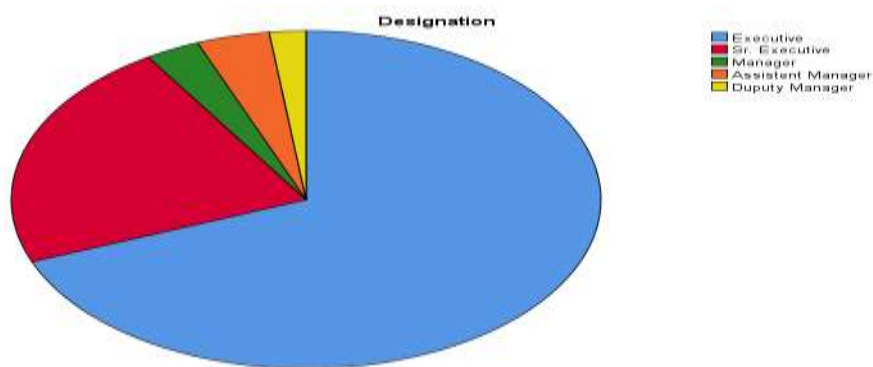
The table illustrates the distribution of responses across different Designation within the organization.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Executive	69	69.0	69.0	69.0
	Sr. Executive	22	22.0	22.0	91.0
	Manager	3	3.0	3.0	94.0
	Assistant Manager	4	4.0	4.0	98.0
	Deputy Manager	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

**Table – 4.2**

The data in the table clearly demonstrates that my preferred method of learning involves Engaging in short, focused lessons to acquire new knowledge.

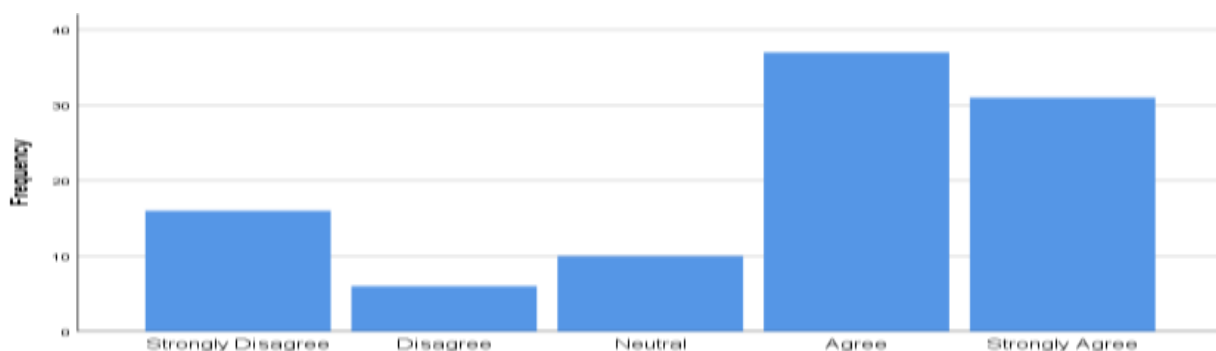
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	16	16.0	16.0	16.0
	Disagree	6	6.0	6.0	22.0
	Neutral	10	10.0	10.0	32.0
	Agree	37	37.0	37.0	69.0
	Strongly Agree	31	31.0	31.0	100.0
	Total	100	100.0	100.0	



**Figure - .4.1.3**

The figure displays the organization's response based on the designation

The pie chart illustrates the proportion of different job roles in the sample group. Out of 100 individuals, 69% are Executives, 22% are Sr. Executives, and the remaining positions (Managers, Assistant Managers, and Deputy Managers) make up 9% altogether.



**Figure - 4.2**

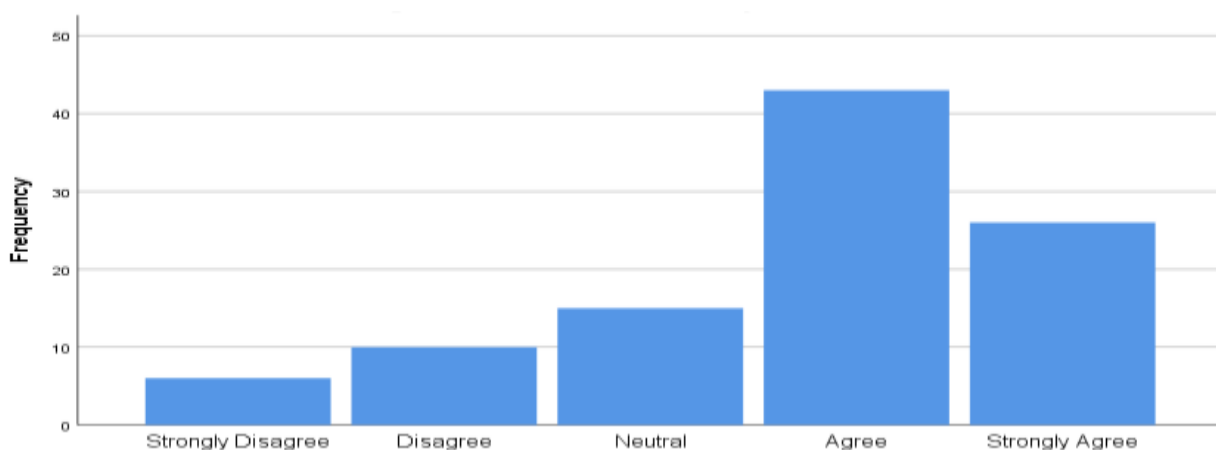
The figure illustrates that preference of learning new things through short, bite-sized lessons.

The majority of respondents (68%) either agree or strongly agree with the statement. Specifically, 37% agree and 31% strongly agree. A smaller group of respondents (22%) either disagrees or strongly disagrees, with 16% strongly disagreeing and 6% disagreeing. Additionally, 10% of respondents are neutral.

**Table – 4.3**

The table shows that Micro learning appears to be a more effective method for acquiring new skills.

		Frequency	Percent	Valid Percent	Cumulative Percent
<b>Valid</b>	<b>Strongly Disagree</b>	6	6.0	6.0	6.0
	<b>Disagree</b>	10	10.0	10.0	16.0
	<b>Neutral</b>	15	15.0	15.0	31.0
	<b>Agree</b>	43	43.0	43.0	74.0
	<b>Strongly Agree</b>	26	26.0	26.0	100.0
	<b>Total</b>	100	100.0	100.0	



**Figure - 4.3**



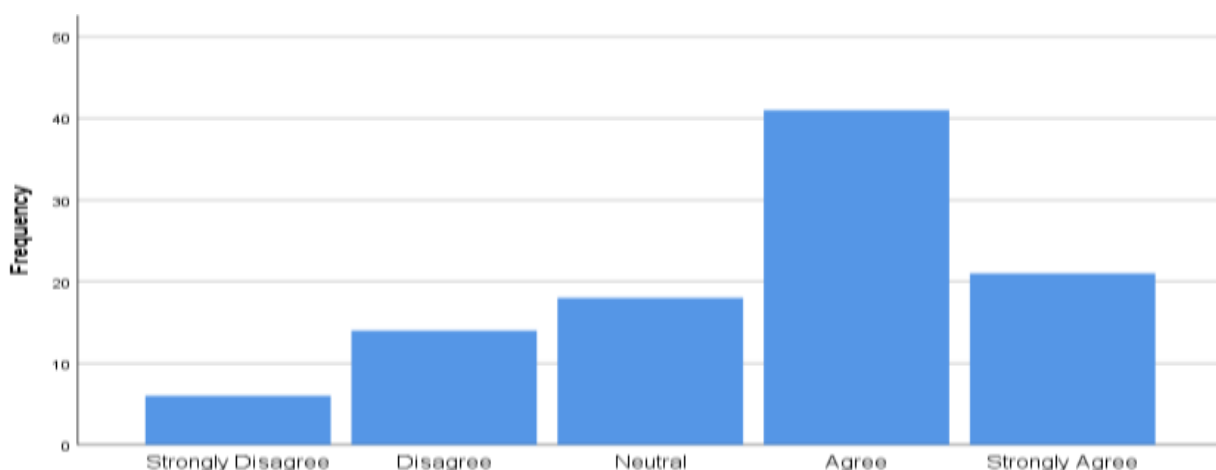
The figure illustrates that micro learning appears to be a more efficient method for acquiring new skills.

The response distribution shows that 69% of respondents either agree or strongly agree with the statement, indicating a positive sentiment overall. Conversely, only 16% either disagree or strongly disagree, while 15% are neutral.

**Table – 4.4**

The table indicates a preference for participating in short, focused training sessions.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	6.0	6.0	6.0
	Disagree	14	14.0	14.0	20.0
	Neutral	18	18.0	18.0	38.0
	Agree	41	41.0	41.0	79.0
	Strongly Agree	21	21.0	21.0	100.0
	Total	100	100.0	100.0	



**Figure - 4.4**

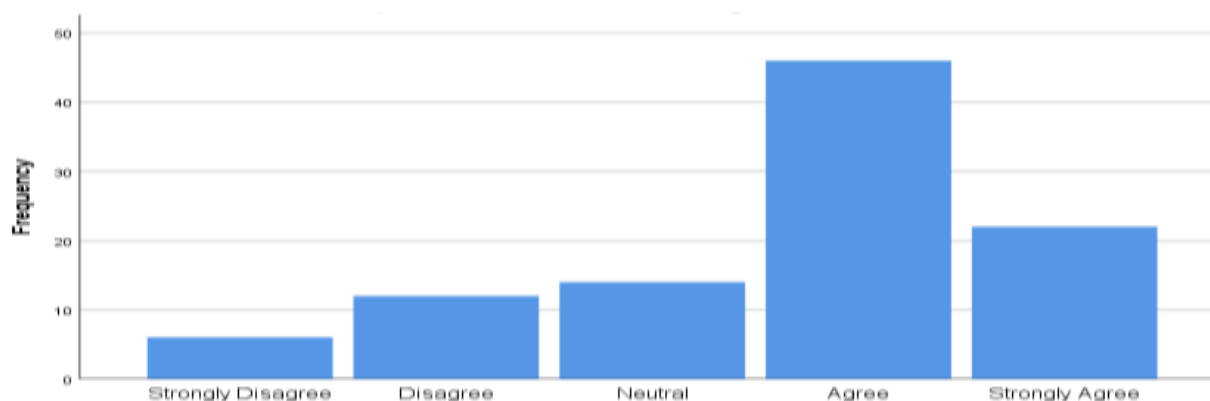
The figure shows that I am more likely to engage in training provided in short, focused sessions.

The survey results indicate that 62% of respondents either agree or strongly agree with the statement, while 20% either disagree or strongly disagree. Additionally, 18% of respondents are neutral.

**Table - 4.5**

The data demonstrates my inclination for absorbing new information through succinct, bite-sized learning modules, highlighting my efficiency and adaptability in the learning process.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	6.0	6.0	6.0
	Disagree	12	12.0	12.0	18.0
	Neutral	14	14.0	14.0	32.0
	Agree	46	46.0	46.0	78.0
	Strongly Agree	22	22.0	22.0	100.0
	Total	100	100.0	100.0	



**Figure - 4.5**

The figure indicates that I prefer learning materials that are clear and concise..

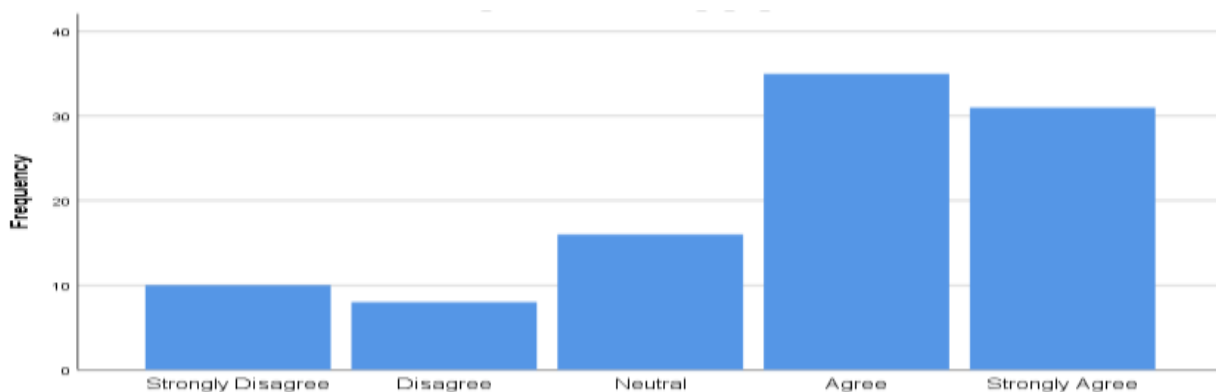
The survey results indicate that the majority of respondents (68%) either agreed or strongly agreed with the statement, showing a strong overall positive sentiment. Only 18% of respondents disagreed or strongly disagreed, suggesting a relatively low negative sentiment. A small segment (14%) of respondents were neutral or undecided about the statement.

**Table – 4.6**

According to the information in the table, it is evident that I tend to be more engaged with video-based learning modules as compared to text-based ones.

	Frequency	Percent	Valid Percent	Cumulative Percent
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Valid	Strongly Disagree	10	10.0	10.0	10.0
	Disagree	8	8.0	8.0	18.0
	Neutral	16	16.0	16.0	34.0
	Agree	35	35.0	35.0	69.0
	Strongly Agree	31	31.0	31.0	100.0
	Total	100	100.0	100.0	



**Figure - 4.6**

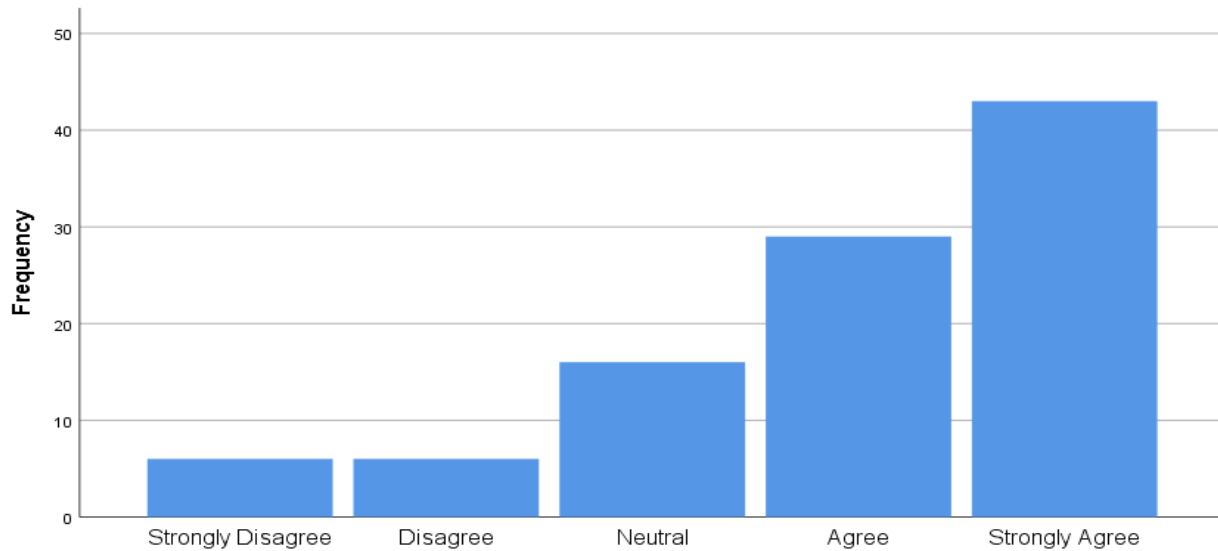
The figure indicates that I find video-based learning modules more engaging than text-based ones.

The survey results show that the majority of respondents are in favour of the statement, with two-thirds showing some level of agreement. The largest single group (35%) agreed, while a substantial portion (31%) strongly agreed, showing strong overall endorsement. Less than one-fifth of the respondents expressed disagreement, and a small yet noticeable group remained neutral.

**Table – 4.7**

The table shows the respondent about micro learning with interactive elements such as quizzes or games would be engaging.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	6	6.0	6.0	6.0
	Disagree	6	6.0	6.0	12.0
	Neutral	16	16.0	16.0	28.0
	Agree	29	29.0	29.0	57.0
	Strongly Agree	43	43.0	43.0	100.0
	Total	100	100.0	100.0	



**Figure - 4.7**

**The figure illustrates that incorporating interactive elements such as quizzes or games into micro learning would be engaging.**

The survey results show strong overall agreement with the statement, with 72% of respondents expressing positive sentiment. Only 12% showed negative sentiment, indicating minimal opposition. 16% were neutral, suggesting indecision or lack of strong feelings.

## 5.1. FINDINGS

- The sample population has a balanced distribution for studies pertaining to gender, with 54% of the population being men and 46% being women. The vast majority of responders (74%) are between the ages of 18 and 24, suggesting a largely youthful sample that is crucial for comprehending generational viewpoints. The sample's occupational profile is revealed by the fact that 22% of the respondents are senior executives and 69% of the respondents are executives.
- The majority of responders (68%) expressed a generally good opinion, agreeing or strongly agreeing with the statement. Just 14% are neutral, and just 18% disagree.

- The most common frequency of engagement is once a week (55%), followed by three times a week (27%), daily (14%), and monthly (4%). This suggests that there is room to encourage less engaged segments to participate more frequently.

While neutrality and disagreement point up areas that need more research or clarification, strong agreement with the statement shows alignment with suggested ideas or actions.

## 5.2 . SUGGESTIONS:

- A sizable majority of respondents feel that learning new subjects in brief, bite-sized chunks is enjoyable.
- According to this research, microlearning seems to be a more successful approach to learning new skills.
- Most people agree with the assertion that they would prefer to take part in brief, targeted training sessions
- Minorities are either neutral or disagree. Based on these insights, this distribution can direct future decisions or activities.
- According to the data, there is strong support for microlearning that incorporates interactive components like games or quizzes. with little resistance and the requirement for additional interaction with impartial respondents.

## CONCLUSION:

Positive results came from the study on microlearning strategies for knowledge retention and staff engagement. The program was widely accepted by a broad sample of participants, most of whom were young and represented an approximately equal distribution of male and female participants. Employees gave the microlearning strategy extremely good comments. Additionally, the data shows that most participants found the learning materials' duration (about 1020 minutes) to be appropriate. Nonetheless, there is a chance to increase the frequency of engagement. Although a sizable percentage (55%) participated weekly, encouraging individuals with lower involvement to participate more frequently (monthly or three times per week) could enhance knowledge retention and program efficacy overall. All things considered, this research shows how microlearning can improve knowledge retention and employee engagement. Future iterations of the program might be improved to increase its impact and attain better learning outcomes by incorporating the insights gathered from this study.



## REFERENCE LIST

### Background & Context

<https://www.learningeverest.com/what-is-microlearning-how-it-helps/#:~:text=Microlearning%20is%20mainly%20used%20to,anywhere%20between%203%2D%2010%20minutes>

### 1. Micro learning

<https://en.wikipedia.org/wiki/Microlearning#:~:text=Microlearning%20refers%20to%20a%20set,single%20learning%20objective%20or%20topic.>

### 2. Employee engagement

[https://en.wikipedia.org/wiki/Employee\\_engagement](https://en.wikipedia.org/wiki/Employee_engagement)

### 3. Knowledge <https://en.wikipedia.org/wiki/Knowledge>

### 4. Company profile

<https://www.biologicle.com/index.html>

### 5. Significance

<https://www.aptaracorp.com/microlearning-and-badges-recognizing-achievements-enhancing-learning/#:~:text=In%20the%20realm%20of%20corporate,badges%20that%20reflect%20their%20progress>