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Massachusetts
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Microlearning: A Pilot Study

Item Type	article;article
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DOI	https://doi.org/10.7275/jg71-gj96
Download date	2024-10-04 18:30:54
Link to Item	https://hdl.handle.net/20.500.14394/39415

Introduction

Hospitality companies are undergoing many changes in the workplace. The expanding role of technology, changing guest expectations, generational shifts in the workforce, increasing competition and changing employee expectations are contributors to this change. With increasing competition and the focus on long-term business, success is reliant on processes and people that can meet the current demands. Workplace learning is a key to success. Current workplace training programs are being challenged and perceived as ineffective.

In their study, Lau, Lee and Chung (2019) contended "...the traditional mode of instructional and informative learning in organizations is becoming ineffective and inflexible" (p. 108). One new method of instruction that shows promise for the hospitality, travel and tourism industry is microlearning. Microlearning is, "an approach to learning that conveys information about a single specific idea in a compact and focused manner" (Maddox, 2018, p. 1).

Review of Literature

Learning

In their study, Diep, Zhu, Stuyven and Blicek (2017) found that social and motivational factors play a key role in learning. Designing learning that captures the interest of the student is paramount to success. Digital immersion in everyday life is shaping expectations in workplaces and workplace learning. In this "Google" era of searching for information and then skimming multiple responses requires the ability to process multiple sources of content from multiple modalities (Mason, 2018). Multi-sensory/multi-modality or combining different types of short lectures, varied visuals, animation, and video experiences provides new ways of learning that helps in building retention of the information through stored memories (Doyle & Zakrajsek, 2013; Mason, 2018; Popova, et al., 2018).

Quick learning is important in the digital era (Mohammed, Wakil, & Nawroly, 2018). Rewarding behavior immediately after short learning sessions has been shown to strengthen learning and retention of information (Wimmer, Li, Gorgolewski, & Poldrack, 2018).

In a study exploring the retention of information, Wimmer, et al. (2018) found that short training sessions distributed over time instead of one massed single session was significantly more effective in long-term retention of the learning content. Massed, longer traditional training sessions result in weaker long-term retention (Mohammed, et al., 2018). Conventional training often uses these longer training sessions, which cause learners to become disinterested and distracted easily and ultimately become a barrier to learning (Jason, 2017).

Learning in the Hospitality, Travel and Tourism Industry

The hospitality, travel and tourism industry is one of the fastest growing industries across the globe. It accounts for over 10% of the world's GDP (Domenget, 2019) and employs more than 10% of the global workforce (Langford, Weissenberg, & Gasdia, 2019). The hospitality, travel, and tourism industry is dependent on its workforce to deliver the hospitality and services its customers expect. One major challenge in this industry is its consistently high employee turnover, typically over 70% annually (Hayton, 2019). Providing effective training that engages the learner has been shown to help reduce turnover (Goh & Lee, 2018).

In addition to its high turnover, there are several attributes of the industry's workforce that present barriers to learning. In the United States, immigrants account for 31% of the workforce in hotels and lodging (Langford, Weissenberg, & Gasdia, 2019). Many of these immigrants have a limited understanding of the language, which presents challenges in communication and training. The more visual and shorter the training, the easier for this population of workers to learn (Clark, Reynolds, & Crandall, 2020; Rajagopal, Reynolds, & Li, 2019).

Customer expectations are also evolving and growing in every segment of the hospitality, travel, and tourism industry. While customer expectations continue to increase, the industry is still dependent on many unskilled workers to deliver service at a higher level. In addition, the expectations and scope of job responsibilities of entry-level employees is also increasing, putting a burden on the amount of time available for training. Effective training in the hospitality, travel and tourism industry is critical. Finding ways to deliver effective training that positively affects results in shortened timeframes will provide a competitive advantage. One such way of delivering training is through microlearning.

Definition of Microlearning

Microlearning is a method that provides bite-sized learning specific to a single idea that is contextually relevant, engaging, and focused (Maddox, 2018; Mogelonsky, 2018). Each microlearning lesson addresses one learning objective using multi-sensory/multi-modalities including mini-lectures, videos, text, images, audio, etc. Microlearning also includes practice and assessment to ensure learning and retention. This method can help put employees in control of what they are learning with ease of access to learning content and their ability to choose when they access the various components of the microlearning module. According to their study, Mohammed, et al. (2018) concluded that using a microlearning technique could improve a learner's ability to learn by up to an 18% increase over traditional types of learning methods.

While microlearning is being heavily discussed and highlighted in a variety of industry communications, there is limited empirical evidence studying microlearning in the workplace. Dolasinski and Reynolds (2019) developed a microlearning model for the hospitality industry (see Figure 1). They contended

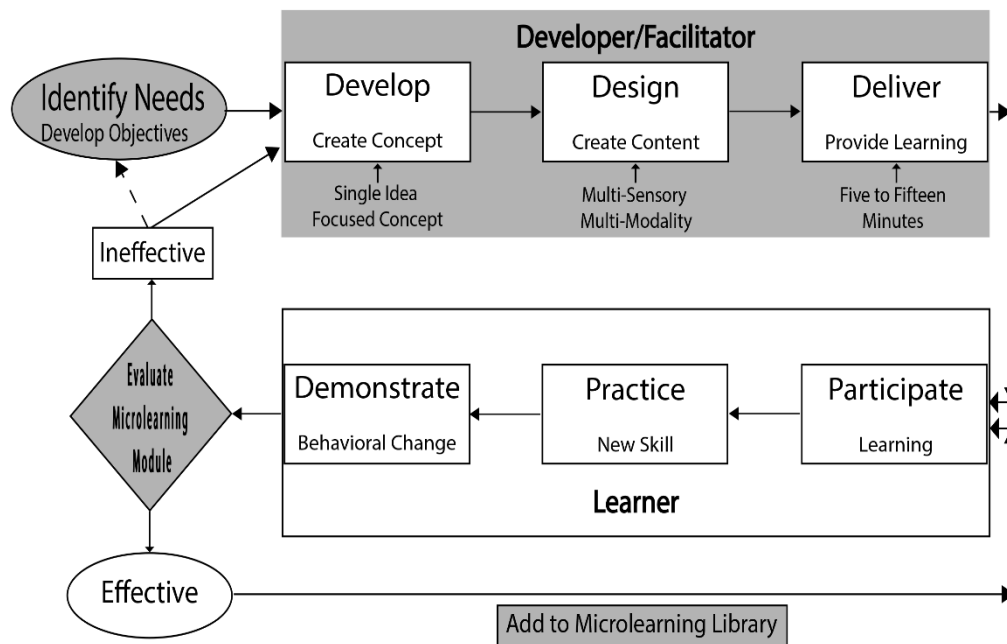
that microlearning provides specific learning in a way that is more effective for today’s hospitality workers. The purpose of this pilot study is to apply the Dolasinski and Reynolds (2019) microlearning model (see Figure 1) to investigate its effectiveness in a hospitality setting.

Methodology

Microlearning Module Development

This study utilizing a qualitative approach developed and pilot tested a microlearning training module, using the Dolasinski and Reynolds (2019) model in a hotel (see Figure 1). The microlearning module for this pilot study was developed, designed, delivered, and assessed specifically for greeting guests at a hotel front desk. The following sections discuss each step of the microlearning training model process conducted in this pilot study.

Figure 1: Microlearning Model



Reprinted from “Microlearning: A New Learning Model.” Dolasinski, MJ & Reynolds, J., 2020, Journal of Hospitality & Tourism Research, DOI: 10.1177/1096348020901579.

Development

Microlearning is the process of creating training that is short, visual and focused. Utilizing the previously developed microlearning model as a framework a training module was developed for the hotel front desk. Hotel managers were consulted and

were involved in the development of the topic. A key factor in developing microlearning is in each learning session having a single topic and one learning goal. The topic in the study involved developing a greeting specifically for guest contact at the front desk of the hotel. The module was developed to include the hotel and brand requirements and company cultural touchpoints.

Design

Dolasinski and Reynolds (2019) identified the importance of using multiple modalities in the design of the microlearning training module. This pilot study utilized four training modalities in the design of the training; a short video (two minutes), a scripted pre-shift mini-lecture, a poster providing a visual of the greeting components, and a business card sized companion card listing the key components of the greeting. The two-minute video was designed to provide live visual examples of the desired front desk “guest greeting”. The pre-shift script was created to verbally inform participants of the desired front desk “guest greeting” as well as provide a brief dialog opportunity and practice role-playing between managers and employees prior to the start of their shift. The poster and business card sized companion visuals were designed to reinforce the content discussed in the short video and pre-shift script.

Delivery

A key construct of microlearning is brevity; with each microlearning module ideally between five and 15 minutes in total. To ensure that the microlearning module was delivered consistently and correctly the researchers conducted a “train the trainer” with the management team that would be implementing the microlearning module directly to the front desk employees. The first part of the “train the trainer” focused on the basics of conducting effective training. The second part of the training focused on how to utilize the various training pieces and script-audit observation assessment.

The managers then facilitated the microlearning module with the front desk employees. The first step in the training using the microlearning module was to conduct a pre-shift mini-lecture to all front desk employees over the course of two days to ensure all shifts and all employees received the training. The mini-lecture was approximately eight minutes. During the lecture the companion cards with the summary of the greeting were passed out to be used as a training aid on the job. The poster was also introduced and then placed in a highly visible employee area to serve as a visual reminder of the greeting. Finally, employees were asked to view the video over the following days to further instruct and reinforce the tenants of the greeting. The total microlearning module training took approximately eleven minutes.

Sample

Front desk employees at a full-service, branded hotel in the Midwest were the target population for this study. This hotel was selected because it represents a major brand, an average number of rooms, and a central location. Criteria for participation in the study required subjects to be 18 years of age or older, be in a position that has guest interactions at the front desk and must be hourly (not salaried) employees. Front desk employees were given the choice to participate in the pilot. This sample represented 100% participation of the entire front desk staff of the hotel. At the beginning of this study 10 front desk employees were participating. Of the initial 10 participants, six dropped from the study due to turnover in the hotel. However, two additional participants joined prior to delivery of the microlearning training and completed the post training observation. Therefore, in total there were six participants with usable observation data.

Measurement Tools

Two measurements were implemented for determining success; one to measure the effectiveness of the training as demonstrated by employee observations and the second to measure the long-term effectiveness of the learning using the microlearning method as perceived by the guest. To measure the effectiveness of the microlearning training, a standardized observation tool (script-audit) was developed and used to collect participant's greeting behavior at the front desk. The script-audit assessment observation tool was developed to assess the key touchpoints of the front desk "guest greeting" based on the contents of the microlearning module. The assessment included ten touchpoints of behavior expected to be demonstrated by the front desk staff. If the participant was observed completing a touchpoint appropriately they received a point, if they did not complete it appropriately they received a zero. Script-audit observation assessment scores were tallied. Each observation had a possible score between zero and ten.

To measure the overall effectiveness of the "guest greeting" as perceived by the guest, standardized guest satisfaction scores were analyzed in categories specific to the "guest greeting" (see Table 1) prior to the microlearning training and 60 days post microlearning training.

Table 1. Guest Satisfaction Categories

Guest Satisfaction Category	Specific Measurement
Staff Category:	- Staff Service Overall - Anticipation of Needs
Loyalty Category:	- Elite Appreciation
Arrival/Departure Category:	- Check-In Experience

Data Collection

Demographic characteristics for each participant in the sample included: gender, age, job title, and ethnicity (see Table 2). The sample was equally split between male and female and age groups. However, ethnicity was less balanced.

The first step in data collection was to conduct a script-audit observation assessment for each participant in the sample prior to the microlearning event. This was used as the baseline behavior for each participant and was referred to as the pre-test. Immediately following completion of the microlearning training, the second step in the data collection was to conduct a post training script-audit observation assessment for each participant in the sample. This was referred to as the post-test. The third step in data collection was to conduct two additional post training script-audit observation assessments for each participant in the sample over several weeks following the training.

The final step in the data collection process was to ascertain the guest score reports from the brand including categories specific to the content of the “guest greeting” taught in the microlearning module. Scores prior to the microlearning training event, scores at 30 days post training and 60 days post training were collected.

Data Analysis

Descriptive statistics including percentage were used to summarize the demographic data (see Table 2). Participant pre- and post- microlearning script-audit observation assessment scores were analyzed for variance and trends. Guest satisfaction scores were also compared between pre-training and post-training.

Table 2. Demographics of Sample Population

Gender	Male	50%
	Female	50%
Age	Between 20-29 yrs old	50%
	Between 30-39 yrs old	50%
Ethnicity	Caucasian	83%
	People of Color	17%

Results

This pilot aimed to apply the Dolasinski and Reynolds (2019) microlearning model to investigate its effectiveness in a hospitality setting, specifically the hotel front desk. Results of this pilot study showed the microlearning model is an effective training tool, showing improved behavior after the training was complete (see Table 3).

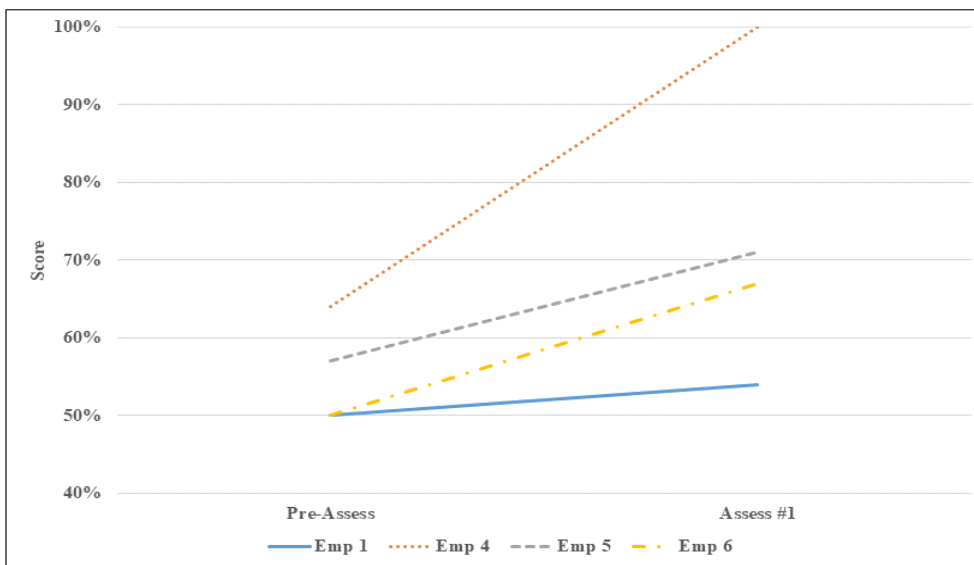
Table 3. Script-Audit Observation Assessment Results

Participant	Title	Pre-Training Observation Score*	Post-training Observation		
			#1*	#2*	#3*
1	Night Audit	50%	54%	64%	75%
2	Hourly Lead	n/a	86%	86%	100%
3	Hourly Lead	n/a	93%	79%	83%
4	Agent	64%	100%	100%	n/a
5	Agent	57%	71%	86%	100%
6	Agent	50%	67%	86%	86%

* Represents percentage score out of 100%

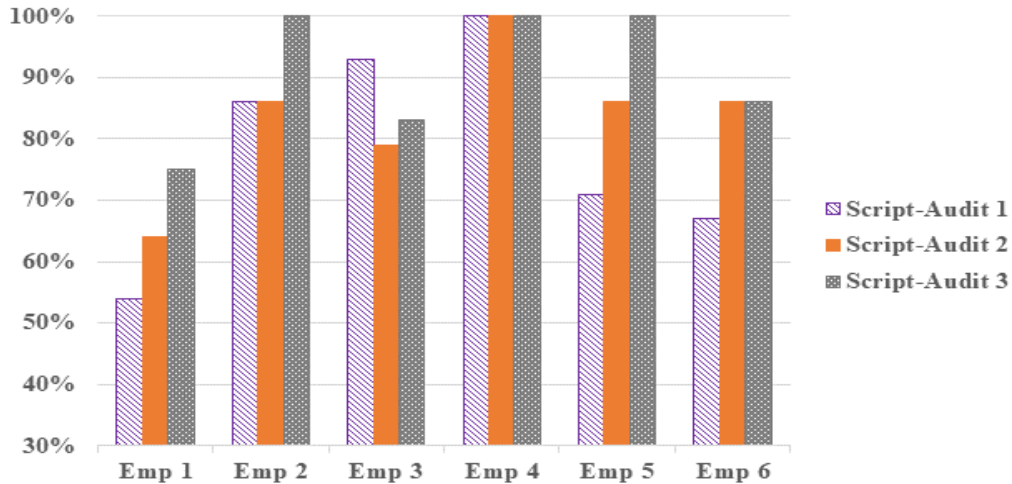
Of the four employees that had the pre-training observation, all four showed an overall increase in behavior on the topic. Learning was measured by comparing observable behavior prior to training as compared to observable behavior immediately following the training (see Figure 2).

Figure 2. Pre/Post Observable Script-Audit Assessment Comparison



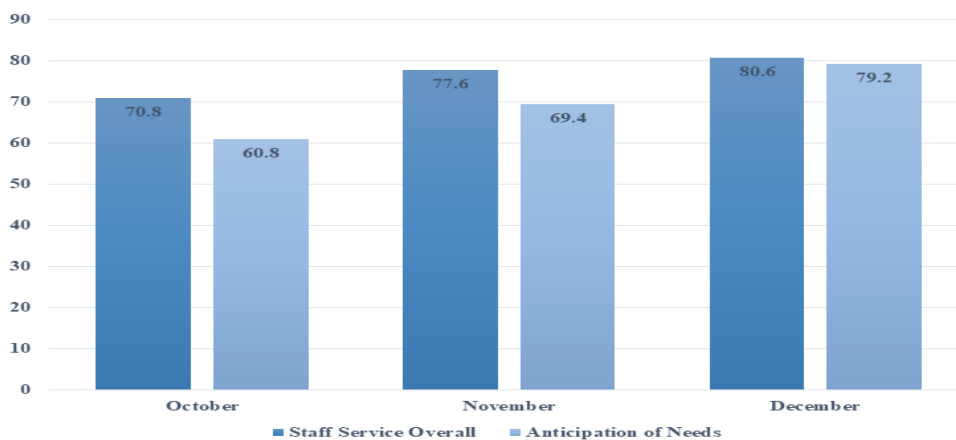
To measure the individual long-term effectiveness of the training, script-audit observation assessments were conducted immediately after training and twice more for each employee over the 60 days following the training. Results showed that 83% of the employees continued to improve or as in the case of “Emp 4”, stayed consistently high (see Figure 3.) The one exception was “Emp 3” where scores for script-audit assessment observation #2 dipped but then improved in script-audit assessment observation #3.

Figure 3. Post Training Script-Audit Assessment Comparison



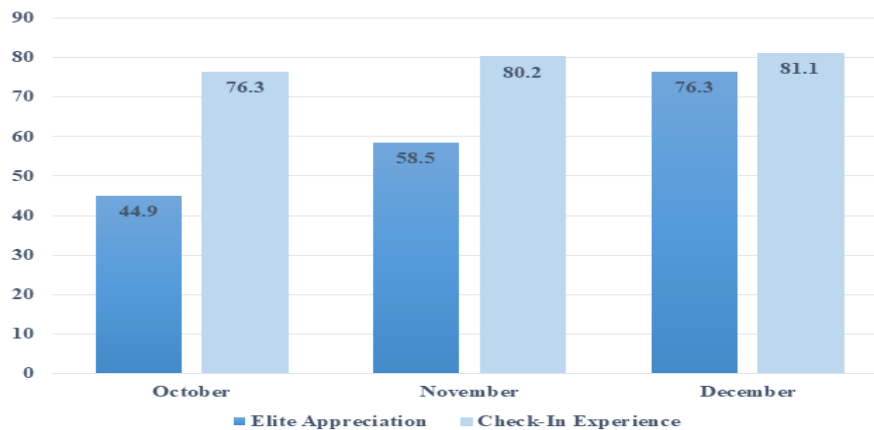
Additionally, guest scores also increased post training, suggesting that once trained, employees continued to perform using the lesson learned through the microlearning. Guest feedback showed that employees improved their behavior for the specific training topic (Front Desk Guest Greeting), and the guests also took notice as demonstrated by the higher guest scores. Three specific categories of scores considered for this pilot study were those that specifically dealt with the topic being taught in the microlearning. The training was conducted in October. In the “Staff Guest Scores” both “Staff Service Overall” and “Anticipation of Guest Needs” improved in the 60 days following the training session (see Figure 4).

Figure 4. Staff Guest Scores Comparison over Three Month Period



In areas of loyalty and arrival/departure scores also showed improvement for the 60 days following the training (see Figure 5).

Figure 5. Loyalty and Arrival/Departure Guest Scores



Discussion

As this was a pilot there were several key insights that were identified which could be improved prior to a larger implementation. The remainder of this section will discuss these recommended changes and justifications for them.

Develop

During the develop phase of the study it was shown to be beneficial to work with each of the key stakeholders in the organization when selecting the training topic. For example, the research team met with the hotel management team several times to develop the topic and specific content. The new standard greeting was approved by all of the stakeholders and adapted as a best practice. Having “buy-in” from all stakeholders can help ensure success of the overall training and behavioral change. Identifying a singular focused topic for the training was critical, this took time and refinement. For example, this study’s topic was front desk guest greeting, but if it were simply “guest interactions” this would be too general and not specific enough.

Design

The next key insight occurred during the design phase, as previously noted a key tenant of microlearning is multi-modality and multi-sensory. Shaping the message to be more focused for delivery is a key tenant for success. Fitting the message to the correct modality is critical. For example, utilizing a short case study or podcast as modalities for this particular topic (front desk guest greeting) would not be appropriate as there is a visual need to demonstrate the desired greeting behavior. The current study could include a more detailed content infographic.

High turnover rates in hospitality and tourism should be a consideration when designing microlearning to ensure that everyone can have the same experience or training regardless of when they start their employment. In the current study during the design period the researchers planned to use several modalities to ensure variation of the training materials. Using the two visual aids and the short video would be appropriate for a transient workforce. For example, if a participant is hired half-way through the microlearning training, the video and visual aids will always be available to them. However, that same participant who is hired may miss the group pre-shift mini lecture. Therefore, turnover needs to be considered when selecting the various types of modalities being offered. It should be ensured that most of the training modalities can be used at any point in the training.

Deliver & Participate

In the model it was identified that microlearning training would take between five and 15 minutes to be delivered. However, it was not identified who specifically should conduct the training. The current study selected a “train-the-trainer” instead of bringing in a researcher to conduct the training. This was identified as a best practice for several reasons; a) the participants were already familiar with the hotel management team, b) the management team will be the ones ultimately holding the employees accountable for executing the greeting well after the training, and c) the management team will have to conduct training for future employees after the initial training.

During the delivery phase it was also shown that small changes should be made that better utilize the time and modalities available to participants. For example, a pre-shift scripted lecture was developed for this study, but during the actual delivery it was shown to be too lengthy. Though the modality itself was appropriate, the length is recommended to be reduced from eight minutes to five minutes or less. The recommended shorten length will help to ensure a concise message and reduce deviation from the specific message. The brief video along with the poster visual and small business-card visual were shown to be successful approaches that helped reinforce the pre-shift discussion and acted as a reminder of the desired behavior.

Practice & Demonstrate

During the practice phase of the microlearning module, the participants were encouraged to utilize the microlearning materials as much as possible to ensure the appropriate standard for front desk guest greetings. This portion of the training was the least monitored therefore it is difficult to assess the level of practice of each participant. In future research it would be encouraged to have a self-report period for participants to discuss their practice behaviors of the new skill.

The next key insight came during the demonstration phase of the microlearning training. In any type of training it is of the utmost importance to have

an assessment component to ensure the training and practice were understood by the participants. During the demonstration phase of this study it was identified that ensuring managers' consistency in completing the script-audit observation assessment is critical. Pilot results showed that people conducting the assessment need to be skilled and have a strong understanding of the desired behavior being observed to provide an accurate assessment. Ensuring consistent assessment will help to provide evidence of behavior change (or lack of) for each participant. It can also provide further assistance isolating specific behaviors still needing improvement post training.

Conclusions and Implications

Overall, this pilot study shows that the Dolasinski and Reynolds (2019) microlearning model is effective in the hospitality setting. Key insights were identified ensuring the message and training modalities align. Additionally, the pilot showed the importance of buy-in from all stakeholders throughout the training process. One of the main qualities of the microlearning approach is its accessibility and flexibility for day to day changes in the workplace in an ever-changing industry with varying topics and varying employee demographics. Microlearning modules are encouraged to be utilized in other areas of the hospitality industry. Having the right modalities and the right message when utilizing microlearning will make this training approach effective and useful. Managers from every discipline in hospitality and tourism can use this model to create and develop effective training for their time pressured employees. Members of the teaching academy can use this model to create shorter learning modules in their classrooms helping students stay focused and engaged.

Limitations and Future Research

This pilot was not without limitations. The size of the department used in this study was small and focused. The sample size was further exacerbated by front desk employee turnover. Six of the original front desk participants departed from the hotel during the course of the study. Additionally, two new front desk employees joined the hotel during the course of the study. The total number of six participants used in this study was appropriate for this qualitative approach. However, additional studies with larger sample sizes need to be used to validate the results of this pilot. Additionally, research on the use of microlearning modules in other areas of hospitality is strongly encouraged. For example, microlearning modules could be used in the foodservice industry to train on a variety of topics. Finally, additional areas for microlearning could be in the hospitality classroom. Pilot testing to assess their feasibility as a teaching approach to prepare students for the industry is needed.

References

- Clark, J., Reynolds, J., & Crandall, P. (2020). Perceptions of a video game to promote handwashing habits in the foodservice industry. *Food Control, 107*, 1-10.
- Diep, A.-N., Zhu, C., Struyven, K., & Blicek, Y. (2017). Who or what contributes to student satisfaction in different blended learning modalities? *British Journal of Educational Technology, 48* (2), 473-489.
- Dolasinski, M. J., & Reynolds, J. (2019). Microlearning: A new model. *Journal of Hospitality and Tourism Research*.
- Domenget, B.-E. (2019). *Top Trends in Hospitality for 2019*. Glion: Sommet-Education.
- Doyle, T., & Zakrajsek, T. (2013). *The new science of learning: How to learn in harmony with your brain*. Sterling, VA: Stylus Publishing.
- Goh, E., & Lee, C. (2018). A workforce to be reckoned with: The emerging pivotal Generation Z hospitality workforce. *International Journal of Hospitality Management, 73*, 20-28.
- Hayton, E. (2019). *8 Causes of Employee Turnover in Hospitality*. Retrieved from harver: <https://harver.com/blog/causes-of-employee-turnover-in-hospitality/>
- Jason, Z. (2017, Winter). Bored out of their minds. *Ed. Harvard Ed. Magazine*, p. 1.
- Langford, G., Weissenberg, A., & Gasdia, M. (2019). *2019 US Travel and Hospitality Outlook*. London: Deloitte.
- Lau, K. W., Lee, P. Y., & Chung, Y. Y. (2019). A collective organizational learning model for organizational development. *Leadership & Organization Development Journal, 40* (1), 107-123.
- Maddox, T. (2018, November 28). *Microlearning and the Brain*. Retrieved from Chief Learning Officer: <https://www.chieflearningofficer.com/article-author/todd-maddox/>
- Mason, L. (2018). Multiplicity in the digital era: Processing and learning from multiple sources and modalities of instructional presentations. *Learning and Instruction, 57*, 76-81.
- Mogelonsky, L. (2018, October 5). *The critical need for a microlearning environment*. Retrieved from Hotels: Passion for Hospitality: <https://www.hotelsmag.com/Industry/Blogs/Details/81999>

Mohammed, G., Wakil, K., & Nawroly, S. (2018). The effectiveness of microlearning to improve students' learning ability. *International Journal of Educational Research Review*, 3 (3), 32-38.

Popova, F., Kovacheva, A., Garov, P., Sivkov, S., Kandilarova, S., Sirakov, N., . . . Velkova, K. (2018). Adult brain activation during visual learning and memory tasks. An experimental approach to translational neuroscience. *Journal of Evaluation in Clinical Practice*, 864-868.

Rajagopal, L., Reynolds, J., & Li, D. (2019). Visual-based minimal-text food safety training materials for Chinese-speaking foodservice workers. *Journal of Extension*, 57(5), v57-5tt4.

Shors, T. J. (2014). The adult brain makes new neurons, and effortful learning keeps them alive. *Current Directions in Psychological Science*, 23 (5), 311-318.

Wimmer, G. E., Li, J., Gorgolewski, K., & Poldrack, R. (2018). Reward learning over weeks versus minutes increases the neural representation of value in the human brain. *The Journal of Neuroscience*, 38 (35), 1649-7666.