

Western Governors University Teachers College
Learning Design WGU Capstone Report

Wine Education for Fast-Casual Restaurants

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Abstract

The following capstone research is based on the design-based research process. The research topic is wine education, specifically how microlearning impacts adult learners' knowledge of wine. The research questions are: 1. How does microlearning impact adult learners' confidence in wine knowledge? 2. What is the effect of the E-Learning course on adult learners' knowledge of wine? Research instruments include assessments and mixed questionnaires.

The participants for the research study are counter service employees at a fast-casual restaurant that sells retail wine. The stakeholder is the general manager of the restaurant who manages the learners. A mixed methods approach using both quantitative and qualitative data supported both research questions as the research methodology. The data collected revealed increased confidence and knowledge in wine for participants. The design-based research process proved that micro-learning contributed positively to fast-casual restaurant servers.

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Chapter 1: Introduction

Instructional Problem

Fast-casual restaurant employees need to be able to provide wine knowledge to support customers purchasing wine and demonstrate wine skills when serving wine to customers.

The learner group's current knowledge, skills, and abilities lack what is required to provide the necessary service to customers. Employees have a general idea of what wines are on the menu for the restaurant's wine by the glass program. Employees can point customers to the white and red sections of the retail space in the restaurant. Employees can take wine orders and pour wine into glasses.

Desired knowledge, skills, and abilities are for employees to be well-informed on wine for better customer service skills, resulting in better sales. Learners should know the components of wine, grape varieties, wine regions, and the definition of wine. Employees should be able to taste wine through the Five Ss of wine tasting. In addition, employees should be able to use their knowledge of combinations of flavors and wine types to pair food and wine to share with customers. Learners should gain the skills of wine serving, such as ensuring clean glassware, the correct way to open a bottle of wine, the proper technique for pouring wine, and the standard way to open champagne.

The gaps between the current state of KSAs and the desired state of KSAs are extensive. Employees cannot define wine, explain its components, and show their knowledge of grape varieties and wine regions. The ability to taste wine based on the Five S's and pair food and wine together is lacking. Skills such as opening wine and pouring techniques have yet to be mastered.

General wine retail knowledge, wine tasting and pairing abilities, and wine service skills are needed for employees to support and serve customers successfully.

Research Topic

Investigate how microlearning impacts adult learners' knowledge of wine. Researching the impact of microlearning on adult learners' knowledge of wine is important to investigate as a possible learning strategy for wine education. Due to time constraints and scarce mindsets in the learner group, exploring possible positive outcomes from microlearning is important. The adult learner group has not received the basics of wine education and will be exposed to information and demonstrations for real-world implications that ultimately could benefit their position and income.

The findings from the research could impact the learning environment by creating further education for learners in the industry. If learners are interested, additional courses could be made in more specialized areas of wine and certifications. The learning environment can grow to be a space for patrons, servers, and restaurateurs interested in wine knowledge.

Research Questions

1. How does microlearning impact adult learners' confidence in wine knowledge?
2. What is the effect of the E-Learning course on adult learners' knowledge of wine?

Research Purpose

The purpose of the study is to examine the impact of an E-Learning course using microlearning on adult servers' wine knowledge and wine serving skills.

Chapter 2: Literature Review

Introduction

According to Statista, Americans consumed approximately 34 million hectoliters of wine in 2022 - more than any other country in the world (Sabetta, 2024). With the rise of fast-casual restaurants and the growing wine market in the United States, training for the fast-casual restaurant sector shows an opportunity for wine education. Three themes should be explored to investigate the need for training in the fast-casual market. First, inspecting evidence of wine education in the fast-casual restaurant sector. Second, the significance of servers' understanding of wine in the aforementioned establishments will be examined, and finally, the importance of customer service as part of employee training will be explored.

Wine Education

Wine training and courses vary from advanced certification to apps providing up-to-date wine market information. The Court of Master Sommeliers certifies students as sommeliers to manage all aspects of wine in a fine dining restaurant. (Court of Master Sommeliers, 2025). The Wine and Spirit Education Trust, or WSET, offers various levels of learning, including a beginner course for \$250.00. The WSET website lists "approved programme providers" offering worldwide wine education. (WSET, n.d.).

Technology enables convenient wine education through e-courses and apps. In 2024, a subscription program called Wine Folly+ was released. (Wine Folly, 2025). A new level of exploration, the membership offers the most extensive collection of wine maps, guides, and educational materials available to wine enthusiasts online (PR Newswire, 2024). Yet another app, titled Shifty, is a restaurant server training program where employers can input information for the learning materials, including their wine menu. (Shifty, n.d.).

Fast-Casual Wine Education

Wine enthusiasts and/or wine professionals benefit from the previous wine education mentioned; however, an essential community lacking training has been omitted from the education sector. Wine education caters to fine dining and restaurants with table service. However, fast-casual restaurant employees who sell and serve wine are often deficient in wine skills, such as wine knowledge and serving techniques. The global fast casual restaurants market size is estimated to grow by USD 302.5 billion from 2024 to 2028, according to Technavio (PR Newswire, 2025).

For many years, wine education focused more on product knowledge rather than on staff training, selling techniques, or wine service (Dewald, 2008). Staff training is a responsibility of a sommelier in a fine dining restaurant. What of the fast-casual restaurant industry, which includes establishments that offer a wine-by-the-glass program and a wine retail section with bottles for purchase? One roadblock is that most fast-casual restaurants do not integrate selling alcohol into their culture, said Richard Keys, managing partner of Food and Drink Resources, a foodservice consulting firm in Centennial, Colo. "They put it on the shelf and no one does training," Keys said. (Thorn, 2014).

Servers are expected to pour and serve wine to customers in fine dining, table service, and fast-casual establishments. Sommelier positions are not part of the fast-casual restaurant business model; therefore, establishments must rely on the food and beverage service personnel to assist customers with the selection of wine. The food and beverage service personnel are generally not qualified to do this. Restaurants usually do not provide training in wine knowledge, wine service skills, and wine selling skills (Brain, 2019).

Wine Education Benefits

Wine education not only supports servers or baristas with knowledge, but it can empower employees to be confident servers with information to accomplish successful job skills. It has been suggested that wine education enhances server confidence, thus increasing credibility and reducing the risk many consumers associate with selecting and purchasing wine in a restaurant dining experience (Bruwer *et al.*, 2017; Gultek *et al.*, 2006; Livat and Remaud, 2018).

In addition to enhancing their confidence level, employees gain experience and education for career leverage. Gultek's (2003) paper suggests that wine training is a career enhancement activity and is considered a piece of continuing education. (Gultek, 2003). Through wine education, restaurant workers can provide essential knowledge to customers while gaining confidence and enhancing their career goals.

Understanding Wine

Wine education encompasses necessary knowledge, skills, and service, including wine appreciation. Foundational knowledge, such as wine components, terroirs, grape varieties, and wine regions, is essential in understanding wine. The way wine is currently consumed has changed completely: customers prefer quality over quantity, they want to be able to match wine with food and try to discover new tastes and new terroirs (Acuti *et al.*, 2019).

Understanding Consumer Knowledge

Consumers are becoming more aware of the culture of wine and how dining establishments portray wine service. The advent of the internet and social media has provided consumers with new instruments to find any kind of information about wine, increasing wine knowledge and expertise (Galati *et al.*, 2017; Pucci *et al.*, 2019). It is necessary for a fast-casual

establishment to have wait staff versed in wine knowledge, and what is more, the attitude or mindset of wine.

Wine Culture

In an article titled Defining and Establishing a Restaurant Wine Culture, Taylor (2023) discusses the importance of wine culture. (Taylor et al., 2023). There is more to understanding wine than grape varieties and types; the spirit of wine is a stimulus behind a wine-selling establishment. It's essential for employees to embrace wine culture by being informed and sharing similar values in wine (Taylor et al., 2023).

Establishing a wine culture furthers an employee's connection to the knowledge gained in wine, broadening engagement with the subject matter. If wine culture is present, the essence of information reaches beyond the traditional platform of education; the cognizance of wine appreciation is relevant to servers, emphasizing the significance of the quality of wine education. When wine education incorporates the appreciation of wine, servers can fully understand the attributes of wine. In a similar point, a 2007 Joseph Phelps wine advertisement summarizes the method: "Some artists work in marble and wood. We prefer dirt.", thus embracing the concept of wine as an aesthetic product through the increasing understanding and knowledge necessary to appreciate the product (Taylor, 2008).

The Benefits of Understanding Wine

In addition to participating in their wine knowledge through appreciation, by distributing wine knowledge to patrons, employees facilitate an experience that contributes to the overall wine culture. These observations suggest that a wine culture creates an environment where employees are enthusiastic about gaining and sharing wine knowledge and connecting with guests over a shared interest in and love for wine. A restaurant with a well-established wine

culture passes the experience on to guests, signaling that it offers more than simply the high-quality service or food they can enjoy at other restaurants (Taylor et al., 2023).

The benefits of wine education reach beyond the servers understanding of wine. When faced with a wine list or a retail shelf crowded with bottles of wine, consumers can be empowered when presented with wine knowledge. Choosing a wine is increasingly being described as being an intimidating and difficult task for many consumers (Sutanonpaiboon & Atkin, 2012). Information shared with patrons is ultimately the determining factor in consumer wine choices. A sizable body of psychological research argues forcefully that knowledge exerts a significant and fundamental influence on consumer decision making. What (and how) consumers decide varies as a function of what they know (Alba, 2000).

Customer Service

A final pillar in wine training for fast-casual employees is the inclusion of customer service skills. Equipping fast-casual restaurant staff with customer service skills enables employees to present information successfully and provide a positive consumer experience. Service managers need to devise operations strategies that focus on the dimensions of service quality that enhance customer satisfaction, which in turn can lead to positive behavioral interactions (Olorunniwo *et al.*, 2006).

Wine Service

To incorporate customer service elements into wine education, the employee needs to understand the essential skills of wine service. Customer service training should include serving techniques that include wine pairing, bottle opening, glass selection, and proper pouring skills. To provide good or even exceptional service, food and beverage service personnel in restaurants should be aware of the wines on offer, the best wine and food pairings, how to serve the wines,

specialised techniques, correct glassware, wine temperatures and suitable substitutes (Gustafsson *et al.*, 2006).

Total Service Experience

Consumer satisfaction needs to be considered even in fast-casual restaurants, specifically in the consumer's wine experience. The totality of the customer service experience includes the information provided from wine knowledge, the present wine culture, and demonstrated serving skills. Fast-casual consumer and server interactions take place during counter service. From sharing wine components to pouring the product for consumers, the influence of wine education determines the outcome of the interconnection between the employee and the patron.

In *Beyond Service Quality and Expectation*, Tu (2004) describes the total service experience (TSE). (Tu, 2004). The infrastructure of successful wine training should embrace the TSE concept. "Total Service Experience" refers to more than a customer's feelings and emotions of the whole occurrence of a completed service transaction that a customer has gone through (Tu, 2004).

Supporting customers with information such as wine components and varieties, pairing wine and food, and finally serving the wine itself are significant to the customer service experience. From our results and findings, we think that the most important takeaway information is that in order to succeed, a service firm needs to "pay attention" and "train [their staff] well" (Tu, 2004). When a server successfully engages in the customer's total service experience, the customer's fulfillment response is satisfied. Olurunniwo (2006) refers to customer satisfaction as "the customer's fulfillment response," explaining that customers' feelings about performance are positive when their expectations have been fulfilled. (Olurunniwo, 2006).

Benefits of Customer Service

Customers are not the only participants who benefit from a comprehensive service experience rooted in employee training. Wine sales increase in establishments with well-trained staff. Sales, Shakespeare (2008) reports, increase as knowledge increases, allowing tracking based on an individual's knowledge through sales reports. (Shakespeare, 2008).

Specifically, wine education is an element of internal customer service. Staff education, including continuous education specifically in the wine industry, deepens the connection of customer service by knowing and understanding the product. Swartz (2024) discusses the positive influence of continuous education on wine appreciation, further supporting wine culture. Besides contributing to wine appreciation, internal customer service includes training staff on serving skills and the knowledge required to support customer needs. (Swartz, 2024).

Conclusion

Wine education is necessary and beneficial in the wine industry, but especially in the fast-casual market. Training that supports an employee's understanding of wine should include multiple elements of wine knowledge. An unexpected result of research is the emphasis on the inclusion of wine culture in wine training. Incorporating wine culture into wine training supports employees' knowledge and appreciation for wine. In addition, studies report benefits for both the employee and customer experience, creating a symbiotic relationship. When servers are confident in their knowledge, employees are knowledgeable enough to make decisions. Employees benefit from the interaction and gain confidence.

Informing Design Solutions

The information gathered from sources will inform the instructional problem design solution by providing themes for adult learners to include in wine education. These elements are

necessary to include for knowledge and skills in employee training. This research expands on existing research by evaluating wine education for employees. Specifically, identifying the instructional design needs in wine education for servers and customers in fast-casual restaurants.

Essential information for learners must be clear, relatable, and provide feedback. Learners will need feedback to understand what knowledge they lack so that they can evaluate further. The gaps in the current literature present little published reporting regarding fast-casual restaurants and wine education, creating an opportunity for further research. This literature review addresses the gaps in the literature by providing a synthesis of research, including the importance of wine education in fast-casual restaurants and the necessary elements fast-casual employees require to support customers' needs.

Chapter 3: Research Methodology

Instructional Problem Overview

An instructional problem has been observed in a fast-casual establishment that serves food and wine. Wine familiarity is insufficient among employees who support wine selection, purchasing, and serving. Fast-casual restaurant employees need to provide wine knowledge to support customers purchasing wine and demonstrate wine skills when serving wine to customers. The focus group for the instructional design problem is fast-casual restaurant employees who need wine education catered explicitly to their workplace. The group's current knowledge, skills, and abilities are minimal in wine knowledge and service expertise. These competencies are essential to support customers.

Potential Solutions

After analyzing possible e-learning solutions, the advantages of scenario-based learning for employee training provide promising opportunities for learners to engage with learning

material while achieving the necessary information to work with wine successfully. Scenario-based learning offers a platform for awareness in wine education greater than what microlearning and guided learning would provide. The awareness that real-world engagement provides is essential to fulfill the necessity for wine appreciation, the importance of which was discussed in Chapter Two. Microlearning would have little opportunity to create awareness, as focusing on small amounts of information would exclude a space for awareness and appreciation. Guided learning could prompt awareness, but the effects may not be as relatable as a real-world application.

In addition to awareness and appreciation, applying relevant connections to information can support essential qualities such as wine serving skills. Instead of a learner reading or viewing information for a microlearning and guided learning assessment, the learner would “experience” the information. For example, to test a learner’s knowledge on how much wine to serve in a wine glass, the learner would provide their answer by clicking on the correct part of the glass as part of the scenario-based evaluation. Learners experience the information through a visual representation of what they will be working with, aiding the learner with real-world applications in the workplace.

Scenario-based learning allows wine training to address a handful of necessary components, from general knowledge to tools and skills essential to serve customers and perform serving duties that instill confidence and experience.

E-Learning Unit of Instruction Description

Wine 101

The module title for the course is Wine 101. The course is a stand-alone module introducing students to wine knowledge and skills. The target audience for the learning group is

employees of a fast-casual restaurant that sells retail wine. Learners must gain wine knowledge and skills to support the restaurant's wine program. The learner group is unfamiliar with types of wine, wine regions, and wine serving.

Learning Goal and Learning Objectives

The learning goal for the course: Learners will apply wine knowledge when supporting and serving wine to customers. The learning objectives include the following:

- Learners will recognize the meaning of wine.
- Learners will infer the importance of wine culture.
- Learners will identify the five components of wine.
- Learners will define the meaning of terroir.
- Learners will memorize five types of red wine and five types of white wine.
- Learners will categorize the three major U.S. key grape growing wine regions.
- Learners will categorize the five most popular international key grape growing wine regions.
- Learners will arrange the order of the five tasting steps.
- Learners will appraise types of food and wine that can be paired together.
- Learners will criticize serving techniques and skills.

There are three units in the course. Each unit has a pre-test assessing the learners' existing knowledge. After each concept is given, the learner takes a formative practice assessment. Each assessment provides feedback for both correct and incorrect answers through various responses. The formative practice assessments vary from drag and drop, multiple-choice, to pick two. In unit one, multiple-choice questions assess knowledge of the meaning of wine and

the importance of wine culture. In addition, learners drag and drop answers to wine components and terroir elements for the second part of the lesson.

In unit two, learners practice flash cards to prepare for a wine type multiple-choice practice assessment. For the second formative assessment, learners click on boxes of U.S. and international regions known for their key grapes. Learners sequence the tasting steps in the third unit using drop-down box choices. After using food and wine pairing flash cards, learners take a practice assessment matching foods to wine types. The last of the practice assessments tests the learner's knowledge of wine serving.

Finally, a multiple-choice practice assessment evaluates learners' knowledge of wine service. The summative assessment covers the three units' material by presenting two possible answers to scenario-based questions.

A focus of the course is ensuring it is self-paced to provide ample time for reading and processing material. Adult learners with various needs, such as dealing with interruptions, struggling with focus, and/or working with learning differences, can benefit from a course that allows users to interact at their own pace. Self-paced learners benefit from a course that includes slides that are not timed. For instance, a learner may need to spend more time on the Major Grape Varieties and Their Regions slide than the Meaning of Wine slide. Learners have the flexibility to move quickly through Unit 1 and slow down on Unit 2. The lessons are scaffolded, providing general information like the definition of wine and wine components in Unit 1, to the Unit 2 practice assessment, where learners are asked to identify key wine grapes.

Non-confident individuals can benefit from multiple opportunities and formative feedback. If learners are not confident to continue the course, they can return. Before a practice assessment, a slide provides a notice letting the learner know that the practice assessment is

coming up. If the learner does not feel confident in their knowledge, they can click the back button on that slide. The course will guide the learner to the beginning of the lesson so that they can go over the material again before they practice. For instance, in Unit 3, if the learner is not confident about the five wine tasting principles, before they move on to the practice assessment, they can be guided back to the beginning of the unit to evaluate the aspects of the lessons they need to review.

In addition, there are feedback responses to supply reasoning as to why or why not a learner's answer to a multiple-choice question may be correct or incorrect. As the course generates formative feedback, the learner is provided with information communicating their current knowledge and skills.

For instance, in Unit 3, the practice assessment in a multiple-choice format prompts learners to answer questions correctly, even if they answer incorrectly. When the prompt asks the learner to choose the appropriate care for glassware, and they answer incorrectly, the feedback response is "Glassware should be stored clean and dry before service. Try again." This response lets the learner know they have more opportunities to answer and provides them with information to make a better choice. The learner develops cognizance in the process, contributing to further confidence.

Technology Tools

A technology tool integrated in Unit 3 is the animation of the Five S's of Wine Tasting. The animation provides a visual order of the steps of wine tasting. The Five S's order includes words that share the same first letter, making it easy to confuse. The visual representation allows learners to see the words in motion and shows the order visually. In addition to the visual tools,

audio is included in the animation. The lesson begins with a wine-tasting lesson and repeats at the end of the lesson to reinforce the visual and audio repetitions for memorization.

Another technology tool that is housed in Unit 3 is demonstrative videos. In order to apply significance to wine serving concepts that learners would ultimately demonstrate in the workplace, it was important to include videos that detailed the process. Four demonstrative videos address the serving skills: Glassware and Polishing, Opening a Bottle of Wine, Pouring Wine Technique, and Opening Champagne. The videos include the equipment needed and techniques, and they show the steps to complete it in the correct order.

E-Learning Module Solution

The e-learning module addresses the instructional problem by providing real-world applications for learners to deliver wine knowledge to customers and demonstrate wine skills. The units in the module include understanding wine, wine types, and wine serving. Unit one, understanding wine, includes the concept of wine culture and the components of wine, ensuring a greater understanding and appreciation of essential wine knowledge. Unit two, wine types, provides more detail about wine and wine varieties, equipping learners with practical information to apply in the workplace. Unit three, wine service, illustrates the attention and detail needed to demonstrate wine serving skills through connecting food and wine pairing and prioritizing equipment and tools.

A part of the module that addresses the instructional problem is the scenario-informed “customer connections” section that explains the course material. The “customer connections” area is designed for learners to relate the knowledge they are using to their past or future experiences. By recognizing relatable examples of challenges that may be present, employees can apply their wine knowledge in similar scenarios.

Another example that addresses the instructional problem in the module is the real-world technical skills demonstrated in the wine service videos. Skills such as properly opening a bottle of wine or chilling wine at a specific temperature are acquired to be demonstrated in the workplace. Details like using a waiter's corkscrew to cut the foil capsule and effectively using the corkscrew's fulcrum device to swiftly and cleanly open a bottle ensure learners' confidence in performing wine skills.

The summative assessment is formatted for learners to answer a scenario-based question. Two possible answers are provided, prompting learners to evaluate the scenario and the probable solutions. Learners are appraising the appropriate answer and recognizing its real-world relevance in possible future customer interactions.

Research Methodology

Method

A mixed methods approach will support both research questions as the research methodology. Qualitative and quantitative data will be collected for research question number one to be thoroughly explored. Qualitative data includes an open-ended questionnaire for learners to share their feelings about their confidence level before and after the course. Quantitative data includes using the Likert scale as a reliable measure of confidence levels. For the second question, analyzing the effect of the course on learners' wine knowledge, quantitative analysis will be conducted through a before-and-after test to collect evidence of learners' prior knowledge and current knowledge post-test.

The mixed methods approach supports both research questions by collecting confidence and knowledge data that apply to the e-course. For instance, data collected before and after the course will include both the feelings learners have about their confidence in wine knowledge and

information about the learners' wine knowledge from test data. These mixed methods will provide data to answer both research questions.

Participants/Stakeholders

The research participants are counter service employees at a fast-casual restaurant that sells retail wine. Due to the small staff size, the number of participants is nine. The age range varies from nineteen to fifty-five years old. The majority of the learners are in their twenties. Learners' educational background varies from high school graduates, some college experience, to college graduates. The participants will be included in convenience sampling as most, if not all, of the counter service employees will be available to volunteer.

The general manager of the restaurant is a stakeholder in the research project. The manager manages employees, inventory, and sales related to wine. They are interested in the study as they want the staff to be well-versed in general wine knowledge and serving skills. Besides instilling confidence in servers, the stakeholder hopes to provide effective customer service, resulting in greater wine sales and better server tips.

Data Collection Instrument(s)

Data will be collected using an intermethod; the mixed method will provide data for both research questions by collecting quantitative and qualitative information. A pre-test and a summative test in the course will collect quantitative data, and a mixed questionnaire will collect qualitative and quantitative data.

One of the two instrument types to be performed is testing. Two tests measure the effect of the learner's knowledge of wine. First is a pre-test quantifying prior wine knowledge through a five-question multiple-choice test. Learners take the pre-test before the e-course in the Articulate Reach LMS. The pre-test will support the research question, 'What is the effect of the

E-Learning course on adult learners' knowledge of wine?' by assessing what information learners already know and then comparing that data with what they have learned from the e-course. The data will be part of the marker used to evaluate the course's effectiveness on adult learners' knowledge of wine.

The additional test instrument is a summative test in a multiple-choice format (the learner picks one of two choices) consisting of twenty questions at the end of the Wine 101 e-course. The questions are presented as a scenario to which the learner chooses a correct response. The test will collect quantitative data measuring learners' knowledge of wine after the e-course. The summative test will support the research question, 'What is the effect of the E-Learning course on adult learners' knowledge of wine?' by assessing what information learners gained from the course by comparing it to the data from the pre-test. The data will indicate if the e-course impacted the learners' knowledge of wine.

The second instrument used for data collection is a mixed questionnaire. There are two types of measuring data in the questionnaire to measure the impact of microlearning on learners' confidence. Learners complete the separate questionnaires before and after the e-course in the Articulate Reach LMS. The questionnaire will support the research question, 'How does microlearning impact adult learners' confidence in wine knowledge?' by collecting feelings, perceptions, and beliefs about their confidence related to wine knowledge before taking the e-course.

There are six questions on both types of measurements. Learners complete open-ended qualitative and Likert scale questions about their confidence in wine knowledge. The data will be part of the marker used to evaluate the effectiveness of microlearning's impact on adult learners' confidence in wine knowledge by determining how learners feel before and after the course. The

questionnaire the learners fill out before the e-course is the same one they fill out after the e-course. Six open-ended questions and six statements on the Likert scale prompt learners to respond to similar questions or statements.

For example, Likert scale learners rate how they agree or disagree on a one to five scale about their confidence in wine. The open-ended questions include a similar question.

Likert scale: *I feel confident about my knowledge of wine types at the moment.*

Qualitative open-ended questions: *How confident do you feel about your knowledge of wine types at the moment?*

The data collected will provide quantitative data from the Likert scale, and the open-ended questions will give more insight into the exploratory part of the research process. The two forms of data should describe the learners' feelings and thoughts about their confidence level with wine, sharing their personal feelings and a numerical quantity from the Likert scale.

Data Analysis Technique(s)

The data analysis will be a mixed-methods process. Data collection will involve quantitative and qualitative data analysis for each research question. For quantitative analysis, inferential statistics will be used to create a prediction to answer research question number one (What is the effect of the E-Learning course on adult learners' knowledge of wine?). For qualitative analysis, thematic analysis will examine themes and repeating responses to answer research question two (How does microlearning impact adult learners' confidence in wine knowledge?). Coding will be used to label data collected from qualitative data.

Expected Timeline

The data collection timeline for the study is nine days. The study will begin on August 19th, and the data collection will end on August 27th.

Data Security and Confidentiality

To ensure data security and confidentiality, the data collected will go through several steps to maintain data safely and responsibly. When data is collected, any mistaken duplicates or mistaken information will be removed as the first step of cleaning. Secondly, collected answers (specifically qualitative data) will be coded to simplify information and protect the learner's identity. Learners' identities will be coded, providing anonymity and confidentiality. Before analysis, data will be checked for any issues to ensure security and privacy.

Conclusion

To summarize, a mixed-methods analysis will collect and evaluate data. A qualitative method will be used to understand how learners feel. This will reflect personal feelings and opinions about learners' confidence in wine knowledge. A quantitative method will be used to evaluate learners' knowledge. This will provide insight into learners' wine knowledge before and after the e-course.

Several instruments are being used to collect data. An open-ended questionnaire that includes a Likert scale will collect opinion and feeling data to evaluate learners' confidence. To assess learners' wine knowledge, tests including the summative assessment will determine if learners have gained knowledge after taking the course.

Convenience sampling is instituted as the selection process to choose candidates. Fast-casual restaurant employees are willing and available to volunteer for the study, supporting the cause for convenience sampling. The participant selection process was derived from a restaurant I frequent, and I observed a problem with the staff's wine knowledge.

Data analysis techniques will include methods for both qualitative and quantitative data. Qualitative research will be analyzed using thematic analysis to evaluate learners' confidence

level in wine knowledge. Inferential statistics can predict a conclusion from quantitative data to determine the effect of microlearning on learners' wine knowledge.

Chapter 4: Results

Summary of Research

The research topic for the instructional problem is exploring micro-learning's effect on a learner's confidence in wine knowledge and the effect of an e-learning course on the learners' wine knowledge. To investigate wine education in fast-casual restaurants, an e-course with the instructional strategy utilizing microlearning and scenario-based solutions is designed to support employees' knowledge and skills in wine. The instructional setting is the Articulate program, facilitating both Articulate Storyline and Articulate Reach. Articulate Storyline is the authoring program for the e-course, and Articulate Reach is the learning management system where learners interact with the e-course.

The participants of the wine course are fast-casual restaurant employees with no prior wine knowledge. Seven learners completed the e-course and answered pre- and post-test questionnaires and assessments. Information from the learners, such as feelings, previous knowledge, and their assessment answers, was collected for research. The stakeholder supported the e-course by communicating with employees and the researcher. The stakeholders' responsibilities included scheduling time for learners to take the course and supporting learners with technology and device resources. The data was collected through the learning platform Articulate Reach. Data included time spent on the e-course, questionnaire answers, results from the summative assessment, and the date the learners created an account for Articulate Reach.

Summary of Results

Qualitative data includes the same Likert scale survey before and after the course.

Qualitative data also included six open-ended questions based on the Likert scale survey, where learners could leave their thoughts and feelings about their confidence in different areas of wine education. The Likert scale statements included confidence levels about wine knowledge, wine culture, wine types, food and wine pairing, and wine serving skills.

Before the course, zero participants strongly agreed they were confident in the Likert scale statements. Two participants agreed they were confident about their wine serving skills. The remaining statement responses showed that participants felt neutral, disagreed, or strongly disagreed about feeling confident in different areas of wine. The open-ended responses to the same question reflected similar responses.

The e-course included one pre-knowledge quiz and one summative assessment. Zero participants passed the pre-knowledge quiz, supporting the evidence of the instructional need. The average pre-knowledge quiz score was thirty-one percent. No participants passed the pre-knowledge quiz. Of the twenty summative assessment questions, ninety percent of participants answered them correctly. Three participants answered the same question incorrectly. Each of the seven participants passed the summative assessment with a score of eighty percent or above. The average summative assessment score was ninety-seven percent. The average duration for the e-course was fifty-seven minutes.

Most learners agreed or strongly agreed when rating confidence levels about wine on the post-course Likert scale. Seven of the forty-two responses about post-course confidence levels were neutral in various areas. The remaining thirty-six responses, learners agreed or strongly agreed with statements about confidence levels in wine.

When interpreting quantitative data of the effect of the course on learners' knowledge of wine the results proved to be positive. There was a sixty-five percent increase in learners' collective assessment score between the pre-knowledge quiz and the summative assessment. Five of the seven learners scored one hundred percent, two scored ninety-five percent, and one scored ninety percent on the summative evaluation. All seven participants passed the course with high scores.

Six of the seven participants incorrectly answered a pre-knowledge quiz question about wine types. Two of the seven participants incorrectly answered a summative assessment question about wine types. The question missed the most (three times) on the summative assessment covered wine components. The other knowledge units were accurately answered with several additional questions on wine types.

When interpreting qualitative data as to the impact of microlearning on learners' confidence, results also proved to be positive. Likert scale outcomes showed a general confidence in wine knowledge when comparing pre-course to post-questionnaire results. Several themes are observed from the Likert scale ratings.

Before the course, two of the seven participants agreed they were confident in one of the six Likert scale statements (wine serving knowledge and skills). The remaining ratings were marked neutral, disagree/strongly disagree about their confidence in wine. Neutral responses had an average of twenty-two percent, with the remaining responses being seventy-three percent, who either disagreed or strongly disagreed that they were confident in their knowledge and skills of wine before the course. These results indicate that most learners were not confident in their wine knowledge and abilities before the wine education course.

The highest pre-course confidence rating (wine serving knowledge and skills) was seven percent. Post-course, the highest scoring confidence levels were in food/wine pairing and wine serving skills. The majority of learners strongly agree that they feel confident in food/wine pairing and wine serving knowledge and skills. Eighty-eight percent of responses to the post-course Likert scale showed that learners agree/strongly agree they feel confident in wine knowledge and skills in general. Two learners felt neutral about their confidence in wine culture. The course did not focus on a large amount of information on culture, as the goal was to create an awareness about it for learners to build.

Learners' confidence in general wine knowledge, wine culture, speaking to customers about wine, wine types, food/wine pairing, and wine serving skills increased after taking the course. All learners felt more confident about their knowledge of wine types post-course.

Three learners were hired the week the participation study was active. There was a concern that the learners would fail the assessment as they did not have work history with the restaurant. To avoid the assumption, I had already coded participants' names, and as a result, was not sure which code represented the newly hired employees. By creating the code, I was unaware when analyzing the summative assessment of the participants' background, eliminating a biased event from transpiring.

Proposed Iteration(s) of E-Learning Solution

Microlearning greatly impacted adult learners' confidence in wine knowledge. Most learners agreed/strongly agreed about their confidence in all areas of wine knowledge. When answering the post-course questionnaire, learners were especially impacted in food/wine pairing and wine serving. The effect the course had on learners' understanding of wine was substantial. There was little to no knowledge of wine before the course in the group of learners. Post-course,

each learner passed the assessment with high scores. The scenario-based design supported real-world tools for learners to apply to their workplace.

There are several modifications when planning a redesign for the wine education course. For more precise and more quantitative data, answers to practice quizzes would be recorded in Articulate Reach. The summative assessment would include a results page where participants can see what they answered correctly and incorrectly. The subject matter, including examples of wine culture, could help learners understand how to create wine culture, instilling confidence in it. For qualitative data, instead of a questionnaire with questions similar to the Likert scale survey, an interview or observations could collect more insight into participants' confidence in wine.

The research methodology will continue to use mixed methods to evaluate quantitative and qualitative data. Observational notes would support interviews and/or observations to collect feelings when witnessing the learner's confidence in their work environment. Quantitative data, such as quiz scores, would be collected throughout the course instead of just at the beginning and the end; therefore, the research methodology would not change, as there would just be additional data.

Refining the data collection tools, such as observational notes and a question to interview participants, could provide a personalized reflection of learners' feelings rather than a digital questionnaire. The data would represent accurate viewpoints on the learner's perspective of their confidence level in their own words. Instead of summarizing a learner's feelings on confidence in wine education, their actions in customer service, and their unique statements from interviews add trustworthiness to the qualitative data collected.

Learners wanted to know what they answered incorrectly on the summative assessment. Two of the participants asked what questions they answered incorrectly. They were provided the information outside of the learning platform. In addition to quantitative data, observing the confidence level in learners' post-course would be helpful. The stakeholder reported that the participants were excitedly quizzing each other on the information. Their enthusiasm is present, and observing their confidence when working with customers would be helpful. The justification for including observational methods for qualitative data is supported by ensuring the absence of bias when collecting data. Johnson, Adkins, and Chauvin (2020)

When more information is included for qualitative data, bias is less severe. When learners are reiterating their feelings on the initial questionnaire based on the Likert scale, the data provided could be biased by repeated information. By just including the Likert scale in qualitative data, there is less opportunity for the answers to represent a small portion of insights and realities for learners. Observations and notes can expand qualitative data, lessening the bias of learners' experiences and feelings.

Chapter 5: Discussion

Conclusions Based on Results

The conclusion of the design-based research study emphasizes a need for wine education for fast-casual restaurant employees. Before the course, learners had little to no knowledge and confidence in wine. Learners developed wine knowledge, connection, skills, tools, and confidence to support essential job duties. Based on data analysis, learners understood general wine knowledge by connecting it to real-world scenarios. Learners were challenged to evaluate wine types and solve customer service-based dilemmas. By gaining awareness of wine education, learners felt more confident about fulfilling their job responsibilities. Based on pre-

knowledge quiz results, learners were not knowledgeable about wine. The summative assessment results indicate that learners successfully grasped essential elements in wine education, as exhibited in the seven learners who passed the summative assessment. In addition, learners gained confidence in wine knowledge and skills to incorporate into their work environment.

The program Articulate Storyline accommodated learning in the instructional setting. Features in Articulate Storyline, such as the Likert scale, were used to research the learners' confidence levels before and after the wine education course. The findings from the pre-knowledge test were essential to determining the learners' prior understanding of wine. Articulate Storyline features tools to create units to establish micro-learning modules successfully. Micro-learning assisted learners in understanding concepts, which were reflected in the summative assessment. Scenario-based micro-learning aided learners through Articulate Storyline's slide deck by delivering visual, real-world scenarios for learners to connect to.

The average time for learners to complete the course was fifty-seven minutes to cover three units, pre-course questionnaires and knowledge quizzes, practice sessions, and a summative assessment. With an average score of ninety-seven percent, the impact of micro-learning on adult servers' wine knowledge and wine skills demonstrated an effective strategy in e-learning. The impact of micro-learning on adult learners' confidence in wine knowledge was reflected in learners' responses to the Likert scale ratings. The majority of learners gained confidence from micro-learning in six areas of wine knowledge. Learners were not confident about wine at the beginning of the course, and completed the short form training, which confidently prepared them to demonstrate knowledge in their workplace.

Limitations

Several limitations could impact the effectiveness of the e-learning module. A wider representation of participants could reflect a more diverse population for research. For instance, several fast-casual restaurants representing various locations may produce learners with contrasting backgrounds, affecting learners' experience with the course.

By providing an extended period for learners to complete the course, learners waited until the last minute to log in and participate. Providing a convenient time that works with learners' schedules for the course to be completed could prove to be more beneficial. If learners were rushing to complete the course, this could limit their participation in the learning process and the outcome of their success.

Lack of data diversity could limit effectiveness when evaluating learner progress throughout the course. Data was collected from learners before, during the summative assessment, and after the course. Analyzing the effectiveness of practice exercises, units, and time spent on each unit could provide more data, add quality, and provide conclusiveness when analyzing data collection.

Implications of Research on Educational Practice

Several design principles were generated as a result of the final interpretation of the data. The summative assessment shows learners were confident in their wine knowledge by successfully answering scenario-based questions. By providing feedback throughout the course, learners could assess their knowledge in real-time prior to the summative assessment. Feedback was provided during practice exercises where learners recalled prior knowledge.

Each unit had a lesson, practice, and a practice assessment. Comparing the wine knowledge data prior to the course with the data from the summative assessment, the learners

improved retention through the guidance provided throughout the course through consistent and timely feedback. Learners could evaluate their performance based on their recall of prior learning. The data from the summative assessment and the post-course Likert scale responses show that design principles successfully enhanced the learners' e-learning experience through the systematic process of engagement, feedback, and evaluation of the learners' performance.

The implications of research for the fast-casual restaurant industry can benefit training in the workplace. It would be important to grow the research participant group, avoiding limitations, and include diverse members of communities. Restaurants in larger wine communities could benefit from the impact micro and scenario-based learning has on learners as servers.

The implications can provide insight into the effect of wine education on fast-casual restaurant employees' confidence and support with customer service. Further implications, such as profits and larger server tips, could be considered when implementing and investing in wine education. Additional research could support these findings and contribute to the fast-casual restaurant industry embracing wine education to further sales.

The wine education research study can reinforce design principles to be implemented in environments catering to fast-performing food, retail, and customer service industries. Micro-learning and scenario-based design that supports engagement, knowledge retention, formative feedback, and timely modules to contribute to learners' knowledge and confidence can establish a successful method for future design-based e-courses.

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Appendix A

Course Description

The e-learning module is a scenario-based, micro-learning one-hour course for fast-casual restaurant employees. The title of the course is Wine 101. The course contains three units providing wine knowledge and skills to learners. The course includes pre-course assessments such as questionnaires to assess learners' confidence in wine and a pre-knowledge quiz to assess learners' prior understanding of wine. Each unit contains subject information, practice exercises, and a review quiz with feedback responses. A summative assessment evaluating post-course wine knowledge and a questionnaire assessing learners' confidence conclude the wine education course.

Appendix B

Data Collection Instruments

Likert Pre-Course Confidence Questionnaire

Likert Pre-Course	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I feel confident about wine knowledge at the moment.		4	2		
I feel confident about my connection to wine culture at the moment.		6	1		
I feel confident when speaking to customers about wine at the moment.		6	1		
I feel confident about my knowledge of wine types at the moment.	2	3	2		
I feel confident about my food and wine pairing knowledge at the moment.	1	4	2		
I feel confident about my wine serving knowledge and skills at the moment.	1	3	1	2	

Likert Pre-Course Confidence Open-Ended Questions. (1 to 2 sentence answers)

Open-ended Question	Confident	Somewhat/Neutral	Not Confident
1. How confident do you feel about your knowledge of wine at the moment?		2 wrote either that they weren't sure or may have some knowledge	5 wrote that they don't feel confident.
2. How confident do you feel when speaking to customers about wine at the moment?		1 wrote they were somewhat confident.	6 wrote they don't feel confident.
3. How confident do you feel about your knowledge of wine types at the moment?		2 wrote they were somewhat confident about their knowledge.	5 wrote they don't feel confident or knowledgeable.
4. How confident do you feel about your connection to wine culture at the moment?		1 wrote they were neutral about their connection to wine culture.	6 wrote they are not confident about their connection wine culture.
5. How confident do you feel about food and wine pairing knowledge at the moment?		2 wrote they were neutral about their food and wine pairing confidence.	5 wrote they were not confident about food and wine pairing.
6. How confident do you feel about your wine serving knowledge and skills at the moment?	2 agreed they were confident about wine serving skills.	The most mixed results. 2 were neutral about wine serving skills.	3 wrote they were not confident about wine serving skills.

Likert Post-Course Confidence Questionnaire

Likert Post-Course	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I feel confident about wine knowledge at the moment.			1	3	3
I feel confident about my connection to wine culture at the moment.			2	4	1
I feel confident when speaking to customers about wine at the moment.			1	4	2
I feel confident about my knowledge of wine types at the moment.				4	3
I feel confident about my food and wine pairing knowledge at the moment.			1	2	4
I feel confident about my wine serving knowledge and skills at the moment.			1	2	4

Pre-Knowledge Quiz Question Results

Q#	Correct	Incorrect
1	2	5
2	3	4
3	3	4
4	1	6
5	2	5

Pre-Knowledge Quiz Scores

L	Test Score
A1	20%
B2	40%
C3	20%
D4	40%
E5	40%
F6	40%
G7	20%
#T	31.42%

**Summative Assessment (Final Grade)/Duration
(80% passing score)**

L	Test Score	Duration
A1	90%	61 minutes
B2	95%	63 minutes
C3	100%	38 minutes
D4	100%	48 minutes
E5	100%	36 minutes
F6	100%	96 minutes
G7	95%	60 minutes
#T	97.14%	57.42 min

Summative Assessment (Question Correct %)

#Q	% Correct
1	100% correct
2	70% correct
3	100% correct
4	100% correct
5	100% correct
6	100% correct
7	100% correct
8	100% correct
9	80% correct
10	100% correct
11	100% correct
12	100% correct
13	100% correct
14	100% correct
15	100% correct
16	100% correct
17	100% correct
18	100% correct
19	100% correct
20	100% correct

Quantitative and Qualitative Course Analysis

Confidence Areas	Quantitative	Qualitative	Summary
General Wine Knowledge	All learners scored high on general wine serving knowledge and skills.	1 felt neutral about their confidence in wine knowledge. 3 agreed and 3 strongly agreed they felt confident about their wine knowledge.	Learners scored high on general wine knowledge on the summative assessment and 6 out of 7 agree or strongly agree they feel confident about wine knowledge post-course.
Wine Culture	All learners scored 100% on wine culture.	Lowest confidence rating post-course. 2 felt neutral. 1 strongly agreed and 4 agreed they felt confident about wine culture.	Learners scored high on wine culture on the summative assessment and 5 out of 7 agree or strongly agree they feel confident about wine culture post-course. 2 felt neutral.
Speaking to customers about wine	All learners scored 100% on general wine knowledge to relay to customers. There wasn't a specific speaking to customers about wine question.	1 learner felt neutral. 2 strongly agreed and 4 agreed about confidence when speaking to costumers about wine.	6 out of 7 agree or strongly agree they feel confident speaking to customers about wine post-course. 1 felt neutral.
Wine Types	There were two questions that some learners answered incorrectly. Both assessed wine type knowledge.	4 agreed and 3 strongly agreed about confidence their confidence in wine types.	Learners scored the lowest on wine types on the summative assessment and 7 agree or strongly agree they feel confident about wine types post-course.
Food and Wine Pairing	All learners scored 100% on food and wine pairing.	1 felt neutral about their confidence in food and wine pairing. 4 strongly agreed and 2 agreed.	Learners scored high on food and wine pairings on the summative assessment and 6 out of 7 agree or strongly agree they feel confident about food and wine pairings post-course.
Wine Serving Knowledge & Skills	All learners scored 100% on wine serving knowledge and skills.	1 felt neutral about their confidence in wine serving knowledge and skills. 4 strongly agreed and 2 agreed.	Learners scored high on wine serving section on the summative assessment and 6 out of 7 agree or strongly agree they feel confident about wine culture post-course.

Pre and Post E-Course Open-ended Questionnaire (1-6) and Likert Scale (1-6)

Click the bubble that indicates what your confidence level is in the following scenarios:

1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

1 2 3 4 5

I feel confident about my knowledge of wine at the moment. ☐ ☐ ☐ ☐ ☐

I feel confident about my connection to wine culture at the moment. ☐ ☐ ☐ ☐ ☐

I feel confident when speaking to customers about wine at the moment. ☐ ☐ ☐ ☐ ☐

I feel confident about my knowledge of wine types at the moment. ☐ ☐ ☐ ☐ ☐

I feel confident about my food and wine pairing knowledge at the moment. ☐ ☐ ☐ ☐ ☐

I feel confident about my wine serving knowledge and skills at the moment. ☐ ☐ ☐ ☐ ☐

Next

The following is an open-ended question.
Include two or more sentences sharing your thoughts about the question, up to 5,000 characters.

4. How confident do you feel about your connection to wine culture at the moment?

type your text here

Next

The following is an open-ended question.
Include two or more sentences sharing your thoughts about the question, up to 5,000 characters.

1. How confident do you feel about your knowledge of wine at the moment?

type your text here

Next

The following is an open-ended question.
Include two or more sentences sharing your thoughts about the question, up to 5,000 characters.

5. How confident do you feel about food and wine pairing knowledge at the moment?

type your text here

Next

The following is an open-ended question.
Include two or more sentences sharing your thoughts about the question, up to 5,000 characters.

2. How confident do you feel when speaking to customers about wine at the moment?

type your text here

Next

The following is an open-ended question.
Include two or more sentences sharing your thoughts about the question, up to 5,000 characters.

6. How confident do you feel about your wine serving knowledge and skills at the moment?

type your text here

Next

The following is an open-ended question.
Include two or more sentences sharing your thoughts about the question, up to 5,000 characters.

3. How confident do you feel about your knowledge of wine types at the moment?

type your text here

Next

Pre-Test (1-5) and Post-Test (1-20) Knowledge Questions

1 of 5

What is the primary grape species used to make wine?

- ☒ Most wine is the fermented juice of *Vitis vinifera* grapes.
- ☐ Most wine is the fermented juice of *Vitis labrusca* grapes.
- ☐ Most wine is the fermented juice of *Vitis vinifera* grapes.
- ☐ Most wine is the fermented juice of *Vitis riparia* grapes.

Submit

4 of 5

Which of the following are white wines?

- ☒ Syrah, Sangiovese, Chardonnay, Moscato
- ☐ Pinot Grigio, Bordeaux, Riesling, Sangiovese
- ☐ Sauvignon Blanc, Riesling, Chardonnay, Pinot Grigio
- ☐ Pinot Grigio, Sauvignon Blanc, Cabernet Sauvignon, Syrah

Submit

2 of 5

Which of the following are the components of wine?

- ☒ Sweetness, Acidity, Tannins, Alcohol, Body
- ☐ Sweetness, Acidity, Tartness, Fermentation, Weight
- ☐ PH level, Sweetness, Tannin, Alcohol, Body
- ☐ Body, Alcohol, Bitterness, Aroma, Sweetness

Submit

5 of 5

A good rule of thumb when pairing wine with cheese is...

- ☒ ...acidity for soft cheeses; tannin for hard cheeses
- ☐ ...white with fish; red with meat
- ☐ ...acidity for tannins; Port for soft cheese
- ☐ ...light wine; sharp cheese

Submit

3 of 5

Which of the following are red wines?

- ☒ Syrah, Sangiovese, Chardonnay, Merlot
- ☐ Pinot Noir, Bordeaux, Riesling, Syrah
- ☐ Sangiovese, Syrah, Cabernet Sauvignon, Merlot
- ☐ Pinot Grigio, Sauvignon Blanc, Cabernet Sauvignon, Bordeaux

Submit

Summative Assessment (1-20)

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

1 of 20

A customer reads the label on your house Sauvignon Blanc and it mentions notes of grapefruit and persimmon. They are allergic to grapefruit and are worried they will have a reaction. Can you assure them the wine is safe?

No. All wines are made by combining the juice of *Vitis vinifera* grapes with different fruits to achieve a desired flavor profile. Another product should be recommended.

Wine is made from the fermented juice of *Vitis vinifera* grapes, the label is only referring to what the flavors may remind you of. No grapefruits are used in traditional winemaking.

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

5 of 20

One of the tables at Keith's tasting event talked about "terroir". How would you help explain the concept?

Terroir is a marketing term used at the tasting event to help sell wine. It refers to the winemaking methods in each country.

Terroir refers to the sense of place exhibited in a well made wine. It is the combination of climate, soil, topography, and other influences that help shape a wine's flavor profile.

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

2 of 20

Keith and Eduardo would like to split a bottle, but Eduardo doesn't like reds that are, in their opinion, "too bitey and too bitter". A great recommendation would be:

A red with higher tannins like Cabernet Sauvignon

A softer red like Pinot Noir

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

6 of 20

Eduardo and Keith would like to try a new wine and are tired of the same old reds and whites. What are some other types of wine for them to try?

Rosé, Orange/Skin Contact, Sparkling, Fortified, and Dessert.

Skin Contact, Orange, Amber, Ramato, and Imperial

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

3 of 20

Your wine distributor has arrived to taste you on a few wines they hope will make it onto your menu. The five components of each wine you should be assessing are:

Sugar, Acid, Fat, Heat, Bitterness

Sweetness, Acidity, Tannins, Alcohol, Body

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

7 of 20

Your location has limited space and the owner has asked you to limit the American wines to just the 3 major regions. What should you choose?

California, Oregon, Wyoming

California, Oregon, Washington

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

4 of 20

Keith and Eduardo recently attended a wine tasting in another city. They are showing you their notes but cannot remember which flavor descriptor reminded them of their favorite red. Which of the following tasting notes would be from a red wine?

black raspberry, plum, cassis

peach, lemon zest, freshly cut grass

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

8 of 20

You have been tasked with adding 5 new international wines to your menu, one from each of the most popular regions abroad. Which five should you choose?

Chile, New Zealand, South Africa, Portugal, France

France, Argentina, Italy, Spain, Australia

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

9 of 20

Keith mentioned their FAVORITE reds are from Italy. Which of the following grapes would they probably enjoy more?

Sangiovese

Pinot Grigio

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

13 of 20

This week's special is a fatty pork belly sandwich. Your manager has asked you to pick a wine to promote with the special. Which should you pick?

A Cabernet Sauvignon with pronounced tannins will match the fattiness perfectly.

A Port Wine, with its extra thick legs, will suggest a higher quality of pork was used.

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

10 of 20

Eduardo called ahead and asked you to set aside three bottles for him. You know he prefers white wines. Which of the following would work?

Sauvignon Blanc, Pinot Grigio, Riesling

Sauvignon Blanc, Riesling, Sangiovese

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

14 of 20

A newly hired teammate has never opened a bottle of wine before. How would you show them the correct way?

Using a waiter's corkscrew, cut and remove the foil cleanly. Center the spiral worm in the cork and twist until one spiral loop remains. Use the two-stage fulcrum and pull straight up with steady pressure.

Using a waiter's corkscrew, insert the spiral worm in the center of the foil capsule and twist until the cork comes through the foil. Use a clean napkin to wipe the corkscrew clean after each use.

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

11 of 20

At Keith and Eduardo's tasting event they learned to taste and evaluate wine using a process called the Five S's. Can you put them in the correct order?

Sight, Swirl, Smell, Sip, Savor

Smell, Swirl, Sip, Spit, Savor

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

15 of 20

You did so well training the new hire that now you've been tasked with teaching them how to pour wine properly. They don't think stopping the pour at the widest part of the glass makes sense. What would you tell them?

Pouring to the widest part of the glass is the best way to remain profitable and it just looks better.

Pouring to the widest part of the glass maximizes aroma capture and prevents over-serving the guest.

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

12 of 20

Your location recently added a dish using Jalapeño, Habanero, and Carolina Reaper peppers. Eduardo loves a spicy meal but has a hard time pairing wines with heat. What would your recommendation be?

A light-bodied Pinot Grigio. Italian wines are perfect with hot peppers!

A Moscato or Riesling. Sweet beats heat!

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

16 of 20

Every time your new hire opens a bottle of sparkling wine, the cork flies away and wine is sprayed everywhere. To correct this behavior, you would suggest they:

Make sure the wine is cold, never shake the bottle, always point it away from people, and open it slowly (maintaining pressure on the cork).

Give the bottle a gentle shake, point it AWAY from people, push up on the cork with your thumb.

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

17 of 20

During downtime, you've tasked your new hire with polishing the wine glasses. You've taught them to look for spots, lipstick marks, and water stains. You've handed them a microfiber towel to polish with. What added tip would you give them?

If you can't get a spot out, try wetting the microfiber towel with sanitizer solution.

Make sure to hold by the stem (not the bowl) to avoid fingerprints and streaks.

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

18 of 20

Eduardo just returned from a trip to California. The airline lost his luggage, which had a bottle of red for his cat-sitter. What would you offer him as a replacement?

A Cabernet Sauvignon

A Chardonnay

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

19 of 20

You've noticed since completing this wine course that your location has fostered a sense of wine culture. What is the benefit of this?

Your boss will see that you have the ability to retain knowledge and will assign new classes to you.

Wine savvy guests will purchase more, leading to higher sales, higher average tickets, and possibly even higher tips.

SUBMIT

Wine 101 Final Assessment

Click the answer that best matches the question and then click submit.

20 of 20

Your manager would like you to pick two red wines and two white wines to highlight on a social media post. Which of the following would work?

Cabernet Sauvignon, Sauvignon Blanc, Pinot Crigio, Riesling

Syrah, Sangiovese, Chardonnay, Pinot Crigio

SUBMIT

Appendix C

Site Permission Evidence

From: [REDACTED]
Sent: Saturday, July 12, 2025 1:16:06 PM
To: Leah Johnson <ljo3050@wqu.edu>
Subject: [REDACTED]

Dear Leah F. Johnson

[REDACTED] has reviewed your Capstone Research request for study, titled *Wine Education for Fast-Casual Restaurants* and we agree to support collaboration efforts towards your collection of data in accordance with your description:

Research will be conducted by analyzing learners' confidence and knowledge about wine before and after a wine education e-course. The e-course is one hour long and participants will need stable internet connection. Participants include employees who provide counter service and wine orders, purchases and serving.

The extended invitation to conduct the above-described study will occur between July 19th, 2025, to July 27th, 2025.

