Analysis Report

Baking a Vanilla Cake

Boat Bakery

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Overview

Baking a Vanilla Cake is a mixed mode course that will instruct learners online and in-person on how to bake a vanilla cake from scratch with buttercream frosting.

Learners will have the opportunity to learn a recipe, utilize baking tools, and operate kitchen equipment. Anyone can participate in the course, both learners who want to continue baking as a hobby and those who want to take additional courses are welcome to participate.

This Analysis Report contains a goal analysis for baking a vanilla cake, a subordinate skills analysis making cake batter (one major step identified in the goal analysis), and learner and context analysis.

Goal Analysis

As seen below in Figure 1, Students will learn how to bake a vanilla cake with butter cream frosting. The goal statement was identified by our Subject Matter Expert (SME), Calli Putnam, for this course. It states:

Upon the completion of this course, students will be able to bake a vanilla cake given the right tools and ingredients, evaluated by the SME.

The goal analysis identifies the eight major steps needed in order to successfully bake a vanilla cake with buttercream frosting. In our goal analysis, steps 4 & 7 and steps 5 & 8 are taught in one lesson because they are the same steps.

This goal is classified as an intellectual skills goal. As demonstrated by the diamond in Step 3: Bake Vanilla Cake Batter, the learner must make a determination if their cake batter is done baking. If the learner determines the cake is done baking, they will follow steps 4 and 5. If the learner determines the cake is not done baking, they will follow steps 6, 7, and 8.
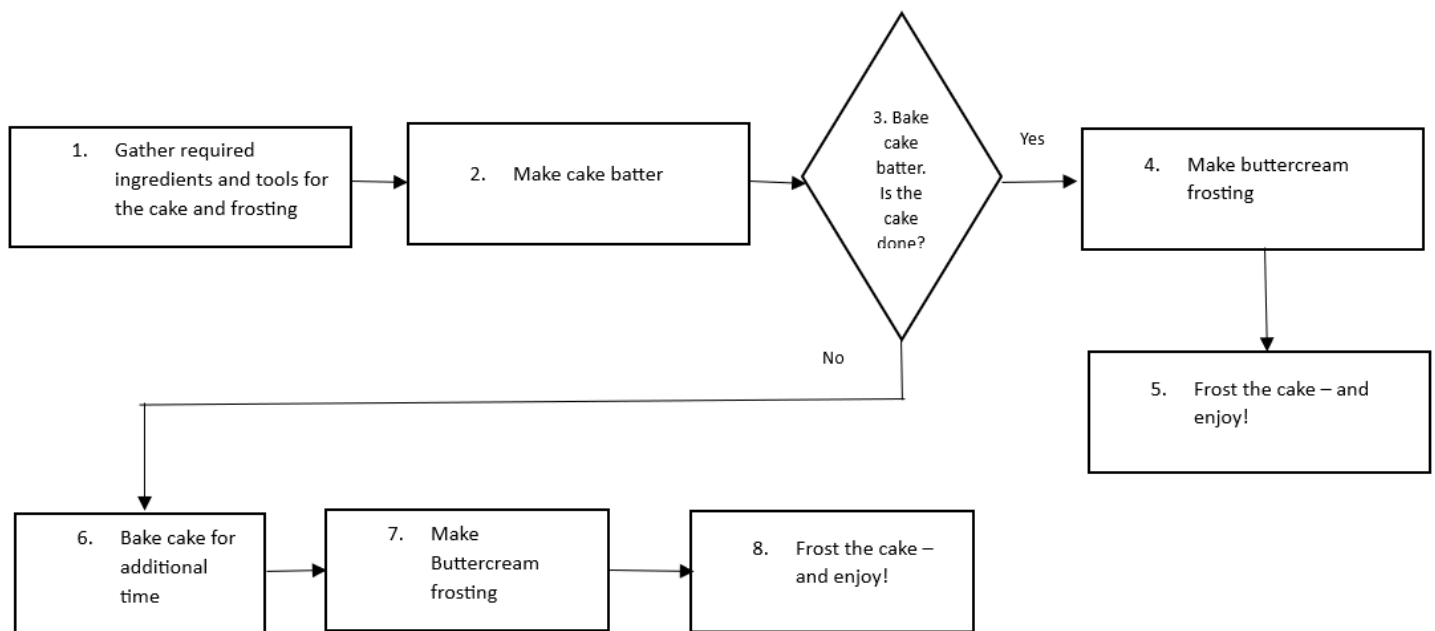

Figure 1: Diagram depicting results of a step-wise goal analysis

Subordinate Skills Analysis

Figure 2 below provides an outline of the subordinate skills associated with Step 2: Make Cake Batter. There are several entry skills needed to satisfactorily perform the task of making cake batter. These entry level skills are shown below the dashed link in Figure 2. Students need to be familiar with reading letters, numbers, and words, operating an oven, utilizing measuring tools, and operating a hand/stand mixer.
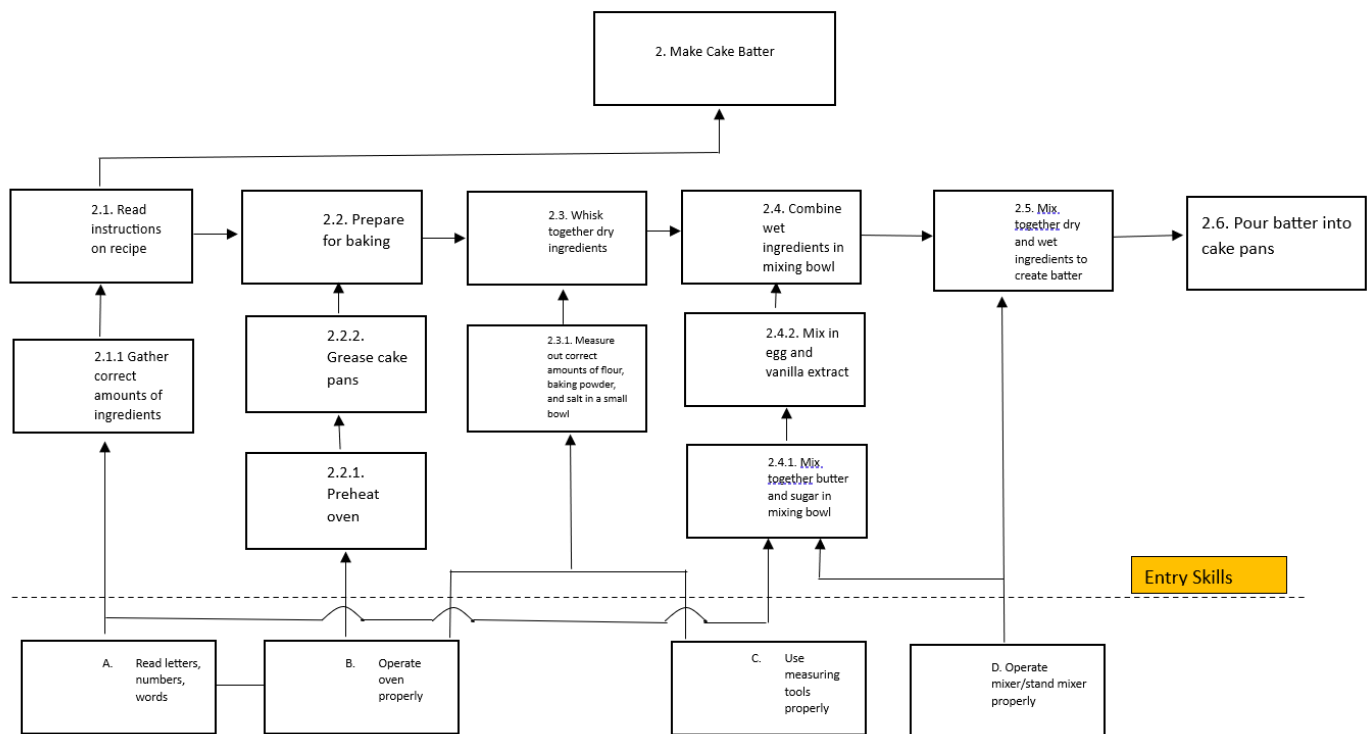

Figure 2: Diagram depicting a subordinate skill analysis for Step 2: Make Cake Batter

Learner Analysis

Table 1.1 below reflects a learner analysis for Baking a Vanilla Cake. Information about the target population will be gathered via interviews with the target learners, observations about their behavior and practical skills, and questionnaires about themselves and their motivation for the course. Due to this information still needing to be conducted, for purposes of the learner analysis it is assumed our population is a group of adults who have completed post-secondary education as we only offer this course to adults. These learners are motivated to complete the course; however, most students want to learn as a hobby and approximately 25% of learners will continue with additional baking courses.

Information Category	Data Sources	Learner Characteristics	Implications
1. Entry Skills	**-Interview** target learners about cooking and baking experiences **-Observe** how target learners follow the instructions on the recipe and use kitchen tools	Based on related subordinate skill analyses, there are no formal required entry behaviors related to the course contents. However, target learners are adults only. All students can read and have at least some experiences in using kitchen appliances and tools (oven, measuring tools, mixer), know the units of measurement and can identify ingredients. 50% of students use kitchen tools regularly.	Learners should be provided with access to further information and instructions about using kitchen tools and baking cakes (books or online tutorials).
2. Prior knowledge of topic area	**Interviews** and **Observations** as above	All students have ever seen someone who was baking a vanilla cake (in person, in a TV show or online video). 25% of the students have tried baking or cooking at least once. 50% of the students know the general steps for baking a vanilla cake. All students are beginner bakers.	Instruction should only contain common baking steps, utensils, measuring units and tools.

3. Attitudes toward content (ARCS)	-**Interviews** and **Observations** as above - **Questionnaires** about their condition and expectations are sent to all students	Relevance: All students are beginner bakers willing to learn baking. They believe that this course will help them learn the basics of baking so that after completing the course they can independently improve their knowledge and skills at home. 25% of the students believe they need this course as a basis for further baking courses. Students' perceived level of attention, confidence and satisfaction are unknown and need to be examined.	The benefits of learning baking basics should be noted throughout the course. Additional information about students' perceived levels of attention, confidence and satisfaction toward content information should be gathered either prior to, during or after the course.
4. Attitudes toward delivery system (ARCS)	**Interviews, Observations** and **Questionnaires** as above	Relevance: All students have experience in live teaching and believe that if they follow the instructions and the recipe carefully, they will succeed. They also believe they will benefit from additional video tutorials and baking books. However, more information needs to be gathered to determine students' attention, confidence and satisfaction relative to the delivery system are unknown and need to be examined.	Attention needs to be paid to learners with little experiences in baking to ensure they have the skills, knowledge and confidence necessary to succeed. Additional information about students' perceived levels of attention, confidence and satisfaction with the delivery system should be gathered either prior to, during or after the course.
5. General Academic Motivation	**Interviews, Observations** and **Questionnaires** as above	In terms of academic motivation, most students are highly motivated. They all want to learn baking and expect to follow clear instructions. However, 25% of the students are also motivated to complete the course successfully to enroll in further baking courses. But most students want to learn baking as hobby.	It is important to ensure that all activities are viewed as valuable learning experiences. In addition, specific methods for ensuring and measuring individual contributions to the team project must be established. Otherwise, there is no need for additional motivational aids in general.
6. Educational and ability level	**Interviews, Observations** and **Questionnaires** as above	All learners are adults, completed secondary education and have work experience in different fields. Their baking experience varies. Only 25% want to continue with further baking courses and potentially will work in the field of cooking and baking. All students are very capable of learning new baking skills.	The development of baking skills should be emphasized.

7. General learning preferences	**Interviews, Observations** and **Questionnaires** as above	All students enjoy working in the kitchen and using their hands to create something new. They like challenges and are happy to learn something new.	Different techniques should be mentioned and demonstrated throughout the course to demonstrate different approaches.
8. Attitudes toward organization	**Interviews, Observations** and **Questionnaires** as above	All students have positive feelings about the course and instructor. All think the course is a good idea for helping them to learn the common steps of baking a vanilla cake. None appeared to have had negative experiences with previous practical courses.	No attempts should be made to motivate already motivated learners. However, the instructor should be sure to provide timely feedback.
9. General group characteristics **a.** Heterogeneity **b.** Size **c.** Overall impressions	**-Interviews** and **Questionnaires** as above **-Records** provided by the student (application/bio graphical form)	**a.** Group is very heterogenous in working experience and baking skills and represent a mix of age (but all are adults), gender and cultural backgrounds. **b.** There will be a total of 12 students enrolled in the course to maximize learning efficiency for live interactive work. **c.** Instructions should enable students to learn skills and practice with quickly visible outcome.	Due to the group size, feedback should be given to each student. More experienced students should receive more input on different techniques.

Table 1.1: Learner Analysis for Baking a Vanilla Cake

Additional Information Requirements

To complete the Learner Analysis, additional information is required concerning students' attitudes toward course content and delivery system (i.e., perceived levels of attention, relevance, confidence and satisfaction). To gather this information, representatives from the target population will be interviewed. It is believed that interviewing representatives from the target population is the best method for gathering these data because it would provide the most accurate description of the target population and it would be relatively easy to collect.

Context Analysis

Depending on the learner, the learning and performance contexts can either have a great deal of overlap or be separate. For this course, the learning setting for all learners will be the learner's own home. The modality of the course will be virtual meetings and instruction.

The performance setting for learners will vary depending on their plans following Baking a Vanilla Cake. For learners who want to continue baking as a hobby, their performance setting will be the same to their learning setting. For learners who want to continue with additional baking courses, their performance setting will vary depending on the modality and set up of their next courses.

Table 1.2 below presents the results of a context analysis performed for the learning setting of Baking a Vanilla Cake.

Information Category	Data Source	Learning Site Characteristics	Implications
1. Number/ Nature of Sites	**Interviews**: Instructors **Site Visits:** Online baking and pastry school **Observations:**	**Number:** Twenty students will be able to access this course from their own locations. **Facilities:** web-based course, individualized instruction that can be accessed by learners from their homes, or anywhere with wifi and proper internet connection. Face-to-face meetings will take place online for teachers and students to communicate as well. **Equipment:** Computers with internet, access to video chatting, a kitchen with proper tools needed (cooking sheets, bowls, measuring cups, baking utensils, etc.) **Resources:** The culinary school has provided the resources to create this online web course, and the professors have provided the resources necessary for the student to succeed. **Constraints:** 1. Online courses can be a constraint, with limited access to professors. 2. Another can be internet trouble. 3. Not having the proper tools since students are not providing the tools in a classroom.	Students should be provided with further instruction on the use of certain tools, and techniques for completing tasks. Students should also be provided with information on where to obtain affordable tools, or alternative kitchens to go to complete recipes.

2. Site compatibility with instructional Needs.	**Interviews**: Instructors **Site Visits:** Online baking and pastry school **Observations**	**Instructional Strategies:** A variety of strategies are used throughout this course. Self-study, video demonstrations, class discussions, group work, lecture, etc. **Delivery Approaches:** Delivery is given through the course online. Materials will be always printable for all students and accessible. Videos will be posted of the professors giving demonstrations, students will be able to connect with the professors through email and weekly video chats to promote discussions. **Time:** Majority of the instructional time will be completed online individually; some will be completed together through discussion online. **Personnel:** A Chef and assistant will be giving the instruction through the online class. A group of four culinary masters created this course with the help of an instructional designer. In general, the site is compatible with instructional needs.	Instructions should be clear and precise and should include many forms of presenting the information for all types of learners. Weekly times should be established for online video instruction to be given.
3. Site compatibility With learner needs.	**Interviews**: Instructors and Learners **Site Visits:** Online baking and pastry school **Observations**	**Location (Distance):** For most students no distance will need to be traveled, some may need to travel to a library for computer access. **Conveniences:** Students can complete this course at their own pace and from a location they feel comfortable in. **Space:** The class is given online and completed in a kitchen with the proper tools. **Equipment:** Students will be responsible for gathering the materials needed in the kitchen. In general, the site is compatible with learner needs.	Students should have access to a kitchen with the proper tools and internet access to participate in online learning, instruction, and class discussions. A common website should be created for students to access where all work and instruction will go through, along with all other resources.

Information Category	Data Source	Context	Implications
4. Feasibility for Simulating workplace.	**Interviews**: Instructors and Learners **Site Visits:** Online baking and pastry school **Observations**	**Supervisory Characteristics:** Supervisory simulation is not necessary because learners baking without a supervisory in the workplace. **Physical Characteristics:** This can be simulated because the workplace is very similar to the environment students will be in, in their own kitchens. **Social Characteristics:** This is not simulated because one normally works with others in the kitchen rather than individually or online. In general, characteristics can be partially simulated.	This course should demonstrate the workplace as much as possible encouraging students to complete assignments as they would in a the real workplace.

Table 1.2: Context Analysis of Learning Setting for Baking a Vanilla Cake

Table 1.3 below presents the results of a context analysis performed for the performance setting of Baking a Vanilla Cake.

Information Category	Data Source	Performance Context	Implications
1. Managerial / Supervisory Support	**Interviews**: Calli Putnam, SME	Due to most students wanting to learn baking as a hobby, the managerial/supervisory support will be dependent on, and vary based on the learner's environment and their peer's personalities. For learners who aim to take further baking courses, the level of managerial/supervisory support will be dependent on the next course's environment and course structure.	Instruction will need to provide guidance on how to navigate baking a vanilla cake if there are any roadblocks encountered by a learner that is not taking further courses. Instruction should also cover how to adapt to different levels of managerial/supervisory support due to further courses having differing structure and managers/supervisors.
2. Physical Aspects of Site	**Interviews**: Same as above	**Facilities:** Facilities will vary, dependent on the learner's own home environment or the environment of the other baking courses taken after this one. It is assumed students will have access to a kitchen. **Resources**: It is assumed learners will be provided recipes for the baking they will perform. **Equipment:** Learners will need access to counter space, mixing bowls, cutlery (spoons/knives/forks), an oven, baking pans, measuring tools (TSP, TBSP, Cups) and a hand or stand mixer.	Instruction will mimic the eventual performance setting as closely as possible. Learners will have the opportunity to be provided any equipment they do not already have access to in order to achieve our goal.

| 3. Social Aspects of Site | **Interviews**: Same as above | Social aspects of the performance site will be dependent on if the learner is taking further baking courses. For learners who plan to only adopt baking as a hobby at home, they will be working alone or potentially with a peer in their home. For learners who plan to take further baking courses, the social aspect will vary depending on the site. Learners may need to work alone or in groups and may need to collaborate on larger recipes. | To prepare learners for working in environments that vary socially, the instructional material must provide examples of how to bake individually and how to bake as part of a team in addition to showing how to bake a vanilla cake |
| 4. Relevance of Skills to Workplace | **Interviews**: Same as above | This will vary depending on the learning individual. Many students plan to take up baking as a hobby, which will not necessarily be relevant to their workplace. For the 25% of learners who plan to take additional baking courses, the skills will be relevant to continuing their development with baking. | The instruction will need to be adaptable so that both learners who plan to adopt baking as a hobby and learners who plan to continue with additional courses are able to achieve their goals. |

Table 1.3: Context Analysis of Performance Setting for Baking a Vanilla Cake

Additional Information Requirements

No additional information is thought to be required to complete the context analysis for learning and performance settings; however, instructors should continue to evaluate and adjust their context based on the students enrolling in their course and what they plan to do after the course on Baking a Vanilla Cake