Effect of Batch Cooking on Food Quality

Lesson Overview

Lesson Participants: School Nutrition Assistants/Technicians

Type of Lesson: Short face-to-face training session

Time Needed to Conduct the Lesson: 15 minutes

Lesson Description: This lesson defines batch cooking and specifies reasons to batch cook. Participants work through a real-life situation in a school cafeteria to apply principles of batch cooking that illustrate how batch cooking can improve quality. The lesson is designed for managers to teach school nutrition assistants/technicians.

Lesson Objectives
At the completion of the lesson the participant will be able to:
1. Define batch cooking.
2. Discuss the reasons to batch cook.

Get Ready to Train

The format for the No Time to Train lessons includes an overview, preparation checklist, lesson at a glance with timeline for conducting the lesson, reference, and script. The manager/instructor will use the script to present the lesson to the participants. The script gives directions to the manager/instructor—SAY, ACTIVITY, DO, ASK, LISTEN, AND ANSWERS—to deliver the lesson.

No special audio-visual or electronic equipment is needed to conduct the lesson. The lesson can be presented in the cafeteria, media center, or classroom.
**Preparation Checklist**

**Directions:** Use the Preparation Checklist to get ready for the training session. Keep track of your progress by checking off tasks as they are completed.

<table>
<thead>
<tr>
<th>Done</th>
<th>Lesson Tasks</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

### Gather Materials

#### Materials Needed:

- [ ] Instructor’s Script
- [ ] Handout 1: Take a Peek in the Pans (one for each participant)
- [ ] Handout 2: Take a Peek in the Pans with Suggested Answers (one for each participant)
- [ ] Pens or pencils (one for each participant)
- [ ] Session Evaluation form (one for each participant)

### Prepare for Lesson

#### Before the Training:

- [ ] Make copies of Handout 1: Take a Peek in the Pans and Handout 2: Take a Peek in the Pans with Suggested Answers (one of each handout for each participant).
- [ ] Make copies of Session Evaluation form (one for each participant).

#### On Training Day:

- [ ] Place pens or pencils on tables (one for each participant).
- [ ] Distribute Handout 1 to each participant.

#### On the Instructor’s Table:

- [ ] Instructor’s Script
- [ ] Handout 1: Take a Peek in the Pans
- [ ] Handout 2: Take a Peek in the Pans Key with Suggested Answers (one for each participant to distribute after discussion)
- [ ] Session Evaluation form
**Lesson at a Glance**  
*(15 minutes)*

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Task</th>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 minutes</td>
<td>Introduction and Overview</td>
<td>Instructor introduces batch cooking as it relates to food quality.</td>
<td>Instructor’s Script</td>
</tr>
</tbody>
</table>
| 5 minutes | Objectives 1, 2  
Define batch cooking and discuss reasons to batch cook. | Participants describe the visual characteristics they would expect to find when a select group of foods are held on the hot steam table and warming cabinets until the end of the last serving period. | Handout 1: Take a Peek in the Pans |
| 6 minutes | Wrap-up and Review | Instructor leads a discussion on the activity completed using Handout 1 and the questions about the food at Early Bird School. | Instructor’s Script  
Handout 2: Take a Peek in the Pans with Suggested Answers |
| 2 minutes | Session Evaluation | Conduct a short evaluation of the lesson. | Session Evaluation form |

**Notes to Instructor:**
Definition: Batch cooking, sometimes called **cooking to the line** or **just-in-time preparation**, means preparing food in small batches as needed throughout the serving period in order to preserve food quality and prevent waste due to leftovers.

The activity in this lesson has no wrong answers. Honor all responses. **Handout 2: Take a Peek in the Pans with Suggested Answers** gives ideas for discussion.

**Reference**
Instructor’s Script

SAY:
As you know, our primary goal as school nutrition providers is to serve students food of the highest quality possible in appearance, flavor, texture, and nutritional value.

One of the keys to achieving this goal is to **cook foods in small batches as needed throughout the serving periods**, whenever possible. We call this method of food preparation **batch cooking**. You may have also heard it referred to as **cooking to the line** or **just-in-time preparation**.

Batch cooking can help us protect food quality and reduce waste. For example, if we batch cook and find that a food item is not as popular as we thought it would be, we can scale back the amount we had planned to prepare. On the other hand, if a food item is selected by customers more than we had planned, we can prepare additional batches to meet demand. Although it takes a little more effort to batch cook, it is easy to develop and execute a production plan. The end result is well worth the time – higher quality food for the students with a reduction in waste.

Let’s take a few minutes to talk about how batch cooking can affect food quality.

**ACTIVITY:**
**Handout 1: Take a Peek in the Pans**

**DO:**
Organize the participants into small groups. Give the participants **Handout 1: Take a Peek in the Pans**.

**ASK:**
Can I get a volunteer to read aloud the scenario at the top of **Handout 1**?

**LISTEN:**
Listen as the scenario is read aloud.

**SAY:**
Let’s take 5 minutes to complete the activity that is at the bottom of **Handout 1**. As a group, discuss and write down what changes you would expect to see with each of the food items if held in warming cabinets and on the hot steam table for 2 hours and 15 minutes.

**DO:**
Once the participants have finished their small group work bring them together again as a class.
ASK:
Ask a spokesperson from each group to read their group’s description of one of the foods that was held in warming cabinets and on the hot steam table for 2 hours and 15 minutes.

Ask for a volunteer to try to put into quality terms the characteristics of that particular food that would result when batch cooked.

LISTEN:
Listen to individual responses.

ASK:
Would batch cooking improve the quality of food served to students at Early Bird School?

LISTEN:
Listen to individual responses.

ASK:
How does higher quality food affect participation in school nutrition programs?

LISTEN:
Listen to individual responses.

DO:
Distribute Handout 2: Take a Peek in the Pans with Suggested Answers.

SAY:
There really aren’t any wrong answers to this activity. The suggested answers on this handout may give us some additional reasons for batch cooking these items.

ASK:
Will the information presented in today’s lesson on batch cooking affect how you plan to prepare food items in the future?

LISTEN:
Listen to individual responses.

ASK:
Are there any other comments or questions about Handout 1: Take a Peek in the Pans?

LISTEN:
Listen to individual responses. Answer questions to the best of your ability. If there are questions you can’t answer, tell participants you will find out the answer and let them know later. If you need assistance in finding answers, please call the National Food Service Management Institute at 800-321-3054.
DO:
Distribute the Session Evaluation form.

SAY:
Thank you for participating in the lesson today. Please take a couple of minutes to complete the Session Evaluation form. Thank you for your input.
Handout 1
Take a Peek in the Pans

Scenario:
Holding many foods in warming cabinets or on the steam table for an extended period of time destroys quality. The manager at Early Bird School is new and worried that the food will not be prepared on time. She insists that all food on the cafeteria line be prepared and ready-to-serve by 10:00 a.m. Most days, the kitchen staff has all the food needed for the day cooked and in warmers before they sit down for their own lunch at 10:00 a.m. When they resume work, they record the temperatures of foods, clean the entire kitchen, wash pots and pans, and freshen up in preparation for the arrival of the students at 11:15 a.m.

When the first serving period begins, the food has been held for 1 hour and 15 minutes. The last child is served at 12:15 p.m., adding 1 hour to the total time that the hot food is held. Imagine that you are behind the steam table at the end of the last serving period lifting the lid on each of the pans to take a peek at the foods listed below. What changes do you expect to see in the quality of the foods after being held in a warming cabinet and on a hot steam table for 2 hour and 15 minutes?

A. Beef patties transferred from a sheet pan to a long steam table pan, shingled, and covered with a pan lid, no added au jus (broth or cooking juices)

B. Sandwich rolls, shingled, panned, and covered with plastic wrap – on hot steam table to warm

C. BBQ chicken breasts covered with pan lid

D. Oven-prepared potato wedges covered with pan lid

E. Steamed fresh broccoli covered with pan lid

F. Steamed rice covered with pan lid
Handout 2
Take a Peek in the Pans with Suggested Answers

A. Beef patties transferred from a sheet pan to a long steam table pan, shingled, and covered with a pan lid; no added au jus (broth or cooking juices)
   *The patties are dry, tough or rubbery, and two-toned where each patty lay against the next, lighter than the areas that were exposed.*
   *(With batch cooking: moist, tender, and uniform in color)*

B. Sandwich rolls, shingled, panned, and covered with plastic wrap – on steam table to warm
   *The rolls have become flat and hard where they rested against the bottom of the pan.*
   *(With batch cooking: warmed immediately before service or served room temperature)*

C. BBQ chicken breasts covered with pan lid
   *The chicken is beginning to burn on the bottom with dry hard edges with dried BBQ sauce on top.*
   *(With batch cooking: moist, tender, sauce in liquid form coating chicken, evenly colored)*

D. Oven-prepared potato wedges covered with pan lid
   *The wedges are limp and soggy. They are breaking apart.*
   *(With batch cooking: oven fresh, crisp, and maintaining their original shape)*

E. Steamed fresh broccoli florets covered with pan lid
   *The broccoli florets are limp, mushy, discolored (dull green) edges are turning yellow and brown. Broccoli falls apart when it is served.*
   *(With batch cooking: bright green color, tender yet firm, remains slightly crisp, and flavorful)*

F. Steamed rice covered with pan lid
   *The rice sticks together in clumps, is sticky, overcooked, and a crust is forming on the bottom and around the edge of the pan.*
   *(With batch cooking: grains separated, not overcooked or sticky, and no clumps)*
# Session Evaluation

**Instructions:**
Completely fill in the circle of your answer. Use a #2 pencil.
Please select only one response for each statement. Do not fold or crease this sheet.

## Title of Meeting:

## Session Topic:

## Trainer’s Code:

## Date: __________  Time Slot: __________  Location: __________  Length of Event (hrs/min): __________

**Attendee Status:**
- [ ] District director
- [ ] State agency staff
- [ ] Major city director
- [ ] Site-level manager
- [ ] Private consultant/trainer
- [ ] Foodservice assistant
- [ ] Other (please list) __________

## Reaction to this Session

Please read the following statements related to the session. Rate your level of agreement by using the scale 5 (Strongly Agree) to 1 (Strongly Disagree).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The session objectives were clearly presented.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. The session objectives were achieved.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. I can apply what I learned in this session to my job.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. Attending the session increased my skill on the topic.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. Attending the session increased my knowledge on the topic.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. I would recommend this session to others.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. Overall, the session met or exceeded my expectations.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
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## Comments about this Session

The information I found MOST useful was:

________________________________________________________________________________________

________________________________________________________________________________________

Please share any additional comments:

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National Food Service Management Institute - The University of Mississippi

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No Time To Train – Short Lessons for School Nutrition Assistants
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