Bead Experiment Role Cards

Each “Card” has “Multitasking” and “Non-Multitasking” tasks described for Supervisors, workers and the Timekeeper

Print this document “double sided”

The cards for each role will be ½ the sheet, with the multi-tasking and non-multitasking versions on opposite sides.

Cut the pages in half to get a set of cards for 6 team members

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Multitasking Supervisor Role Sheet

As the supervisor, your role in the experiment is to make sure that both projects (Red and Blue) are completed quickly, correctly, **and** efficiently. This is very important during the Multitasking part of the experiment.

MULTITASKING PART OF EXPERIMENT

Both Blue and Red projects will be worked at the same time by the three workers. Each worker will perform their job by alternating between the two projects, Red and Blue. Your job as supervisor is to make sure that they are following the correct procedure. When a worker is not switching between projects, remind them that they need to alternate.

MULTITASKING PLAN:

* When a worker has a task to perform, they will repeat it 3 times on one project, before switching to the other project. When both projects are active, the workers will alternate between project, bead colors, and tasks.
* The Red Project starts first, and the time keeper notes the start time. The Blue Project will start 10 seconds later, and the time keeper will note the start time for the Blue Project.
* Worker 1 will move 3 scoops of beads with the spoon for one project before switching to the other project.
* Worker 2 will perform one of their tasks three times before switching to the other project.
* Worker 3 will perform one of their tasks three times before switching to the other project.
* Worker 1 will move 3 scoops of beads with the spoon for one project before switching to the other project.



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MULTITASKING PLAN:

* When a worker has a task to perform, they will repeat it 3 times on one project, before switching to the other project. When both projects are active, the workers will alternate between project, bead colors, and tasks.
* The Red Project starts first, and the time keeper notes the start time. The Blue Project will start 10 seconds later, and the time keeper will note the start time for the Blue Project.
* Worker 1 will move 3 scoops of beads with the spoon for one project before switching to the other project.
* Worker 2 will perform one of their tasks three times before switching to the other project.
* Worker 3 will perform one of their tasks three times before switching to the other project.
* Worker 1 will move 3 scoops of beads with the spoon for one project before switching to the other project.

Non-Multitasking Supervisor Role Sheet

As the supervisor, your role in the experiment is to make sure that both projects (Red and Blue) are completed quickly, correctly, **and** efficiently. During the Non-Multitasking part of the experiment, you as the supervisor have approved that the Red Project will be completed first, and the workers will switch to the Blue Project when they have finished their tasks on the Red Project.

NON-MULTITASKING PART OF EXPERIMENT

During this part of the experiment, the workers will start with the Red Project and complete those tasks before switching to the Blue Project.

NON-MULTITASKING PLAN:

* The supervisor provides the bowl of beads and the time keeper notes the start time for the Red Project.
* Worker 1 will move all the beads from the bowl to the plates for the Red Project one color at a time.
* When Worker 1 is finished with the Red Project, the supervisor puts down the Blue Project bowl, and the time keeper notes the start time.
* Worker 2 will perform all their tasks on the Red Project (one bead color at a time) before starting on the Blue Project.
* Worker 3 will perform all their tasks on the Red Project before starting on the Blue Project.
* Worker 1 moves the Red Project beads, all of one color at a time, from the plates back into the bowl.



Non-Multitasking Supervisor Role Sheet

As the supervisor, your role in the experiment is to make sure that both projects (Red and Blue) are completed quickly, correctly, **and** efficiently. During the Non-Multitasking part of the experiment, you as the supervisor have approved that the Red Project will be completed first, and the workers will switch to the Blue Project when they have finished their tasks on the Red Project.

NON-MULTITASKING PART OF EXPERIMENT

During this part of the experiment, the workers will start with the Red Project and complete those tasks before switching to the Blue Project.

NON-MULTITASKING PLAN:

* The supervisor provides the bowl of beads and the time keeper notes the start time for the Red Project.
* Worker 1 will move all the beads from the bowl to the plates for the Red Project one color at a time.
* When Worker 1 is finished with the Red Project, the supervisor puts down the Blue Project bowl, and the time keeper notes the start time.
* Worker 2 will perform all their tasks on the Red Project (one bead color at a time) before starting on the Blue Project.
* Worker 3 will perform all their tasks on the Red Project before starting on the Blue Project.
* Worker 1 moves the Red Project beads, all of one color at a time, from the plates back into the bowl.

Multitasking Worker 1 Role Sheet

Worker 1 is responsible for moving the beads from the bowl to the plates at the start of the project, and then back to the bowl from the plates at the end of the project

MULTITASKING PART OF EXPERIMENT

Worker 1 will move beads using the spoon, 3 scoops of one color, for one project, before changing to the other project or color. Beads must be moved with the spoon; a finger can be used to help remove wrong colored beads from the spoon.

MULTITASKING PLAN:

* Worker 1 will move all beads from the bowl to the plates:
* If only the Red Project has started:
  + For the Red Project, move 3 scoops of **RED** beads from the bowl to the plates, and then 3 scoops of **CLEAR** beads, and then 3 scoops of **BLACK** beads. Continue rotating through all three colors.
* When the Blue Project has started:
  + Switch from the Red Project, to the Blue Project and move 3 scoops of beads (**RED** , **CLEAR** , or **BLACK**) from the bowl to the plates. Switch back and forth between the projects and bead colors after each 3 scoops.
* When Worker 2 or 3 is done with their task for a project:
  + Start moving the beads from the plates the bowls, 3 scoops at a time, alternating between the Red and Blue projects, and the different bead colors, until all the beads are back in the bowls for each project. When a project is done, tell the timekeeper so they can stop the timer for that project.

Multitasking Worker 2 Role Sheet

Worker 2 is responsible for moving and sorting the **RED** and **CLEAR** beads.

MULTITASKING PART OF EXPERIMENT

You will move beads from the plates to the table using the spoon (no fingers), then flip beads to flat side down, then flip beads to flat side up, then move beads back to the plates with the spoon. Tasks will be performed 3 times before switching to a different project and will alternate between projects and colors. Do not start a new task on a color of bead (moving or flipping) until you have finished the previous task on that same color.

MULTITASKING PLAN:

* Waits until all the beads of one color (**RED**  or **CLEAR**) from one of the projects (Red or Blue) are on the plates.
* Move the beads from the plate to the table with the spoon, 3 scoops of one color before switching to other colors or the other project. If other colors or project are not ready, continue moving beads of the current color.
* When all the beads of one color are on the table, flip over any bead that is not flat side down using one hand only. Flip 3 beads before switching to the other project or other bead colors.
* When all the beads of one color are flat side down, flip the beads so that the flat side is up using one hand only. Flip 3 beads before switching to the other project or other bead colors.
* When all the beads of one color are now flat side up, move those beads from the table back to the plates using the spoon. Move 3 scoops of one color before switching to the other project or other bead colors.



Non-Multitasking Worker 1 Role Sheet

Worker 1 is responsible for moving the beads from the bowl to the plates at the start of the project, and then back to the bowl from the plates at the end of the project.

NON-MULTITASKING PART OF EXPERIMENT

Worker 1 will move beads using the spoon, first all the **RED** beads, then the **CLEAR** beads, then the **BLACK** beads, from the bowl to the plates, starting with the Red Project. When the Red Project beads have been moved, repeat moving the beads for the Blue Project.

NON-MULTITASKING PLAN:

* Worker 1 will move all beads from the bowl to the plates:
* Start with the Red Project:
  + Move all the **RED** beads from the bowl to the plates with the spoon.
  + Move all the **CLEAR** beads from the bowl to the plates with the spoon.
  + Move all the **BLACK** beads from the bowl to the plates with the spoon.
* When the Red Project is done, repeat the same steps for the Blue Project.
* When Worker 2 or 3 is finished with their Red Project tasks, move the Red Project beads from the plates to the bowl with the spoon, one color at a time before moving to the next color. Repeat for the Blue Project when Worker 2 and Worker 3 are done with their tasks.

Non-Multitasking Worker 2 Role Sheet

Worker 2 is responsible for moving and sorting the **RED** and **CLEAR** beads.

NON-MULTITASKING PART OF EXPERIMENT

You will move beads from the plates to the table using the spoon (no fingers), then flip beads to flat side down, then flip beads to flat side up, then move beads back to the plates with the spoon. Perform these tasks on the Red Project **RED** beads, then **CLEAR** beads, and then repeat on the Blue Project beads.

NON-MULTITASKING PLAN:

* Start with the Red Project, **RED** beads, when Worker 1 is finished moving them to the plates
  + Move all the beads from the plate to the table with the spoon using only one hand.
  + Flip the beads until all of them are flat side down using only one hand.
  + Flip the beads until all of them are flat side up using only one hand.
  + Move all the beads from the table back to the plate with the spoon
* Repeat the above steps on the Red Project **CLEAR** beads.
* Repeat the above steps on the Blue Project, **RED** beads first, then the **CLEAR** beads.



Multitasking Worker 3 Role Sheet

Worker 3 is responsible for moving and sorting the **BLACK** beads.

MULTITASKING PART OF EXPERIMENT

You will move **BLACK** beads from the plates to the table using the spoon (no fingers), then flip beads to flat side down, then flip beads to flat side up, then move beads back to the plates with the spoon. Tasks will be performed 3 times before switching to the other project. Do not start a new task (moving or flipping) until you have finished the previous task on all the beads for that project.

MULTITASKING PLAN:

* Waits until all the **BLACK** beads from one of the projects (Red or Blue) are on the plates
* Move the **BLACK** beads from the plate to the table with the spoon, 3 scoops before switching to the other project. If the other project **BLACK** beads are not ready, continue moving beads for the current project.
* When all the Black beads of one project are on the table, flip over any bead that is not flat side down using only one hand.. Flip 3 beads before switching to the other project.
* When all the **BLACK** beads of one project are flat side down, flip the beads so that the flat side is up using only one hand. Flip 3 beads before switching to the other project.
* When all the **BLACK** beads of one project are flat side up, move those beads from the table back to the plates using the spoon. Move 3 scoops of one color before switching to the other project.



Multitasking Timekeeper Role Sheet

As the Timekeeper, your role in the experiment is to make sure that the experiment times are recorded accurately.

MULTITASKING PART OF EXPERIMENT

* Red Project Starts First
  + When the Red Project starts, record the start time or start the Red Project stopwatch, if you have one.
* The Blue Project Starts 10 seconds after the Red Project
  + When the Blue Project starts, record the start time or start the Blue Project stopwatch, if you have one
* When Worker 1 is almost finished moving the beads from the plates, back into the bowls, for the Red or Blue project, that project is almost finished.
  + When worker 1 finishes one project, record which project (Red or Blue) and the end time, or stop the stopwatch and record the stopwatch time for the finished project.
* Worker 1 will finish the other project (Red or Blue) by moving the beads from the plates back into the bowls. This may be very soon after the first project to finish.
  + When Worker 1 finishes the other project (Red or Blue), record which project (Red or Blue) and the end time, or stop the stopwatch and record the stopwatch time for that project.

Non-Multitasking Worker 3 Role Sheet

Worker 3 is responsible for moving and sorting the **BLACK** beads.

NON-MULTITASKING PART OF EXPERIMENT

You will move **BLACK** beads from the plates to the table using the spoon (no fingers), then flip beads to flat side down, then flip beads to flat side up, then move beads back to the plates with the spoon. You will perform all tasks on the Red Project **BLACK** beads before switching to the Blue Project.

NON-MULTITASKING PLAN:

* Start with the Red Project, **BLACK** beads, when Worker 1 is finished moving them to the plates
  + Move all the beads from the plate to the table with the spoon
  + Flip the beads until all of them are flat side down
  + Flip the beads until all of them are flat side up
  + Move all the beads from the table back to the plate with the spoon
* Repeat the above steps on the Blue Project **BLACK** beads

Non-Multitasking Timekeeper Role Sheet

As the Timekeeper, your role in the experiment is to make sure that the experiment times are recorded accurately.

NON-MULTITASKING PART OF EXPERIMENT

* Red Project Starts First
  + When the Red Project starts, record the start time or start the Red Project stopwatch, if you have one
* The Blue Project will start when the Red Project beads have been moved from the bowl to the plates
  + When the Blue Project starts, record the start time or start the Blue Project stopwatch, if you have one
* The Red Project will finish First
  + When worker 1 finishes the Red Project, record the end time, or stop the stopwatch for the Red project and record the stop watch time.
  + When worker 1 finishes the Blue Project, record the end time, or stop the stopwatch for the Blue project and record the stop watch time.

