

Plants Research Questionnaire / Observation

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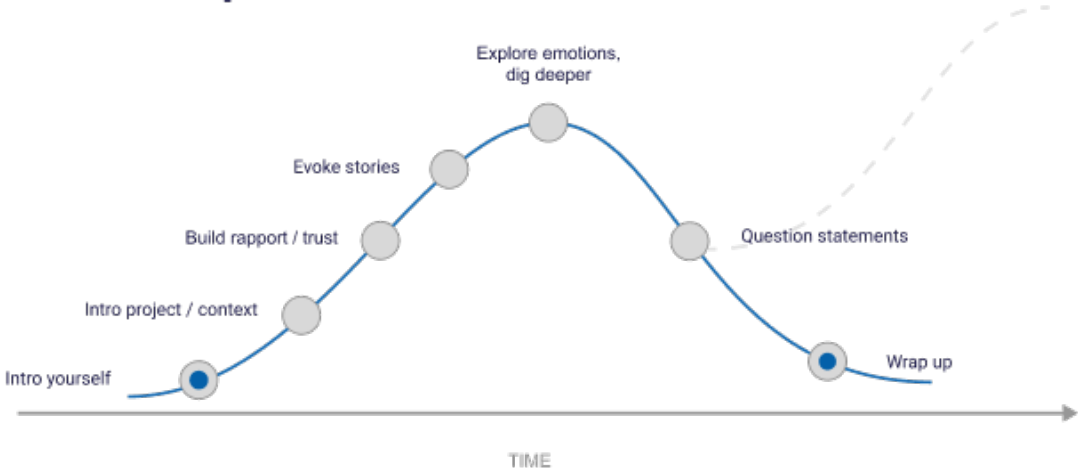
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Observation part (20 min)

Interviewer will be guided through the work of the interviewee in their natural environment with the possibility to ask questions or experience what the interviewee experiences in the context of their job.

Empathy interview (all participants) (35 min)

Interview’s shape



1. What are your main activities on the plant? / What do you do?
2. What is it you are trying to achieve in this <context>? (Ultimate goal / ideal end state) Why?
3. Can you tell me about your recent experience in the <context of> that was particularly meaningful for you? Why?
4. Tell me about the time you felt really good regarding <context>? What happened? (tell me a story). Why did that make you feel good? Why?
5. Tell me about the time you didn't feel good regarding <context>? What happened? (tell me a story). Why didn't you feel good? Why?
6. What surprised you the most in that <context>?
7. Can you walk me step-by-step through how you achieve the goal you mentioned before?
8. What happened right before <specific activity>? What happened right after?
9. Can you show us how you use <this product/service> or how to perform this particular step?
10. What is (or are) for you the biggest challenge(s) in achieving the objective you shared? How do you navigate these challenges?
11. Can you describe a time when things didn't go as planned? How did you handle the situation?
12. Imagine you have a magic wand and you can change anything you wish in your work. If you could change one thing in your work, what would you change?
13. What do you wish you had known before working at the plant?
14. Is there anything else you'd like to share?

Usability Testing (role-specific) (35 min)

Role specific questions

Production Operator – Kiln

Application: Master of Cement

Task 1: Operate kiln according recommendations/suggestions generated by the master of cement diagnostic tool

Scenario:

Imagine you need to **Operate kiln according recommendations/suggestions generated by the master of cement diagnostic tool in order to keep the kiln operation aligned to the production and process expectations. How would you use this application in order to get the information required?**

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.
3. How confident are you that you completed the task successfully?
4. How cluttered or organized did you find the site you viewed?

Application: SIHO 3

Task 1: Operate kiln according the refractory installed/reported in SIHO**Scenario:**

Imagine you need to **Operate kiln according the refractory installed/reported in SIHO to Keep kiln operation stable. How would you make sure you can achieve this task using the SIHO application?**

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.
3. How confident are you that you completed the task successfully?
4. How cluttered or organized did you find the site you viewed?

Application: SIHO Preheater & Cooler

Task 1: Operate kiln according the refractory installed/reported in SIHO

Scenario:

Imagine you need to **Operate kiln according the refractory installed/reported in SIHO kiln operation stable. How would you make sure you can achieve this task using the SIHO Preheater & Cooler application?**

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.
3. How confident are you that you completed the task successfully?
4. How cluttered or organized did you find the site you viewed?

Production Operator – Mill

Application: Master of Cement

Task 1: Operate kiln according recommendations/suggestions generated by the master of cement diagnostic tool

Scenario:

Imagine you need to **Operate mill according recommendations/suggestions generated by the master of cement diagnostic tool in order to keep the mill operation aligned to the production and process expectations. How would you use this application in order to get the information required?**

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.

3. How confident are you that you completed the task successfully?
4. How cluttered or organized did you find the site you viewed?

Application: SIHO 3 (Kiln)

N/A

Application: SIHO Preheater & Cooler

N/A

Quality Technician

Application: Master of Cement

Task 1: Ensure the chemical design of products to keep product quality in line with production and process expectations.

Scenario:

Imagine you need to **ensure the chemical design of products to keep product quality in line with production and process expectations. How would you use this application in order to get the information required?**

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.
3. How confident are you that you completed the task successfully?
4. How cluttered or organized did you find the site you viewed?

Application: SIHO 3 (Kiln)

N/A

Application: SIHO Preheater & Cooler

N/A

Prod. Shift Manager

Application: Master of Cement

Task 1: Check that recommendations/suggestions are complied with in both operation and installations to keep equipment performance aligned with production and process expectations.

Scenario:

Imagine you need to **check that recommendations/suggestions are complied with in both operation and installations to keep equipment performance aligned with production and process expectations. How would you use this application in order to get the information required?**

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.
3. How confident are you that you completed the task successfully?
4. How cluttered or organized did you find the site you viewed?

Application: SIHO 3 (Kiln)

N/A

Application: SIHO Preheater & Cooler

N/A

Process Coordinator

Application: Master of Cement

Task 1: Fill data into applications to find bottlenecks and deficiencies in the process to keep information and operation of equipment and process measurements up to date.

Scenario:

Imagine you need to **fill data into applications to find bottlenecks and deficiencies in the process to keep information and operation of equipment and process**

measurements up to date. How would you use this application in order to get the information required?

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.
3. How confident are you that you completed the task successfully?
4. How cluttered or organized did you find the site you viewed?

Application: SIHO 3 (Kiln)

N/A

Application: SIHO Preheater & Cooler

N/A

Production Manager

Application: Master of Cement

Task 1: Diagnose the current situation of the process and facilities (or equipment, or installations?) keep plant targets aligned with production and process expectations.

Scenario:

Imagine you need to **diagnose the current situation of the process and facilities (or equipment, or installations?) keep plant targets aligned with production and process expectations. How would you use this application in order to get the information required?**

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.
3. How confident are you that you completed the task successfully?
4. How cluttered or organized did you find the site you viewed?

Application: SIHO 3 (Kiln)

N/A

Application: SIHO Preheater & Cooler

N/A

Kiln/Calciner Coordinator

Application: Master of Cement

N/A

Application: SIHO 3 (Kiln)

Task 1: Load refractory installations into SIHO tool to keep information updated and consolidated for future references.

Scenario:

Imagine you need to **load refractory installations into SIHO tool to keep information updated and consolidated for future references. How would you use this application in order to do so?**

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.
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Application: SIHO Preheater & Cooler

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Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.
3. How confident are you that you completed the task successfully?
4. How cluttered or organized did you find the site you viewed?

Production Manager

Application: Master of Cement

N/A

Application: SIHO 3 (Kiln)

Task 1: Review current refractory installations vs previous cases in SIHO tounderstand benefits, refractory life cycles and risks.

Scenario:

Imagine you need to **review current refractory installations vs previous cases in SIHO tounderstand benefits, refractory life cycles and risks? How would you use this application in order to do so?**

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
2. Please explain your rating.
3. How confident are you that you completed the task successfully?
4. How cluttered or organized did you find the site you viewed?

Application: SIHO Preheater & Cooler

Task 1: Review current refractory installations vs previous cases in SIHO to understand benefits, refractory life cycles and risks.

Scenario:

Imagine you need to **review current refractory installations vs previous cases in SIHO to understand benefits, refractory life cycles and risks? How would you use this application in order to do so?**

Instructions:

- Attempt to complete the task as naturally as you would in your everyday workflow.
- Think aloud as you go, noting any areas where you feel uncertain or encounter issues.

Follow-up Questions:

1. How difficult or easy was it to complete the task?
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