# [Course name]: evaluation-research study design

## Project:

## Broad Evaluation Questions (one or two broad questions, which capture the essence of the evaluation)

## Stakeholders (people who have an interest in the results of the evaluation)

### Major

### Minor

## Participants (people who actually provide the data)

# Evaluation Research Matrix Template

## Baseline Analysis

| **Question Data Sources** | Document Review | Interviews |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| * What is the learning and teaching context? |  |  |  |  |  |  |  |
| * What are the characteristics of the student cohort? |  |  |  |  |  |  |  |
| * What is the learning and teaching problem to be addressed? |  |  |  |  |  |  |  |
| * What is the relevant literature? |  |  |  |  |  |  |  |
| * What are the pedagogical and technological assumptions of the designers? |  |  |  |  |  |  |  |
| * What is the goal of any solution? |  |  |  |  |  |  |  |
| * Which solution(s) is appropriate to the learning and teaching problem? |  |  |  |  |  |  |  |
| * Is an e-learning approach appropriate to the learning and teaching problem? |  |  |  |  |  |  |  |

## Design Evaluation

| **Question Data Sources** | Document Review | Interviews | Peer review |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Design Evaluation: Overall |  |  |  |  |  |  |  |
| * Is the design consistent with the Baseline Analysis? |  |  |  |  |  |  |  |
| * Should the design achieve the planned outcomes? |  |  |  |  |  |  |  |
| * Is the design based on evidence-based e-learning best-practice? |  |  |  |  |  |  |  |
| * How can the design be improved? |  |  |  |  |  |  |  |
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| Design Evaluation: Curriculum design |  |  |  |  |  |  |  |
| * How appropriate are the desired learning outcomes? |  |  |  |  |  |  |  |
| * What should be assessed? |  |  |  |  |  |  |  |
| * What content should be covered? |  |  |  |  |  |  |  |
| * Why is this an appropriate solution to the educational problem? |  |  |  |  |  |  |  |
| * How appropriate is the content for achieving the desired learning outcomes? |  |  |  |  |  |  |  |
| * How appropriate are the learning resources (electronic or traditional)? |  |  |  |  |  |  |  |
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| Design Evaluation: Learning design |  |  |  |  |  |  |  |
| * To what extent is the learning design appropriate to the proposed curriculum and desired learning outcomes? * Is the learning design consistent with the beliefs of the teacher about learning and teaching? * Is the learning design grounded in the learning and teaching literature for this discipline? * How well aligned are the learning and assessment tasks to the desired learning outcomes? * To what extent does the learning design enable learners to interact with others, if appropriate? * To what extent does the learning design enable learners to reflect on their work and develop generic learning outcomes? |  |  |  |  |  |  |  |
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| Design Evaluation: Design of the e-learning artefact |  |  |  |  |  |  |  |
| * Are there any gaps in the written design specification? * How will the design of the e-learning artefact facilitate the desired learning processes and outcomes? * How appropriate are the interactive learning tasks to the learning and teaching problem? * To what extent is the graphic look and feel appropriate for the subject matter and the target audience? * To what extent are media elements attractive and suitable for the target audience? * To what extent will the designed navigational mechanisms allow students to gain access to materials and perform the requisite tasks? * Are the tools used to implement the design appropriate for the functionality and interactivity of the e-learning artefact? * Does the software architecture facilitate content updating, repurposing and future scalability? |  |  |  |  |  |  |  |
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## Formative Evaluation

| **Question Data Sources** |  |  |  |  |  |  |  |
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| Formative evaluation of the e-learning artefact |  |  |  |  |  |  |  |
| * Does the e-learning artefact function as it was designed? What are the bugs? * Are interactive learning activities within the e-learning artefact working as designed? * Can learners use the e-learning artefact easily (can they navigate, gain access to materials, etc.) * Is the graphic design attractive, approachable and accessible? * Are response times, screen refresh rates and media download times acceptable? * To what extent does the software architecture facilitate ongoing development and modification? * Does the e-learning artefact meet relevant ‘accessibility’ standards? |  |  |  |  |  |  |  |
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| Formative evaluation of the e-learning environment |  |  |  |  |  |  |  |
| * How do learners use the learning environment? * How can contextual aspects of the learning environment be improved? * To what extent do learners engage with learning tasks as intended? * Are the learning tasks appropriate for the target learners? * What is the association between elements in the e-learning environment? * Is the e-learning environment used in unintended ways? * Does the manner in which learners use the e-learning environment encourage the desired contextual learning processes? * What forms of collaborative activities are occurring? * How useful do learners find the e-learning environment? * What types and degree of interaction do learners have with each other and with their teachers? |  |  |  |  |  |  |  |
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| Formative evaluation of the learning process |  |  |  |  |  |  |  |
| * How do learners use the learning environment? * How can contextual aspects of the learning environment be improved? * To what extent do learners engage with learning tasks as intended? * Are the learning tasks appropriate for the target learners? * What is the association between elements in the e-learning environment? * Is the e-learning environment used in unintended ways? * Does the manner in which learners use the e-learning environment encourage the desired contextual learning processes? * What forms of collaborative activities are occurring? * How useful do learners find the e-learning environment? * What types and degree of interaction do learners have with each other and with their teachers? |  |  |  |  |  |  |  |
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## Effectiveness research

| **Question Data Sources** |  |  |  |  |  |  |  |
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| Effectiveness research of contextual learning processes |  |  |  |  |  |  |  |
| * How do learners engage with learning tasks in order to learn? * What evidence is there that learning is occurring? * What is the influence of contextual factors on learners’ engagement? E.g.   + Are learners using the e-learning environment in self-formed groups when it was conceived as a single-user system?   + Are learners using the e-learning environment minimally or erratically when you thought it would be highly engaging? * Are there unexpected cognitive benefits deriving from the ways in which learners engage in learning tasks (e.g. do learners pose questions or connect ideas or create repetitive practice in ways that were not anticipated)? |  |  |  |  |  |  |  |
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| Effectiveness research of cognitive learning processes. |  |  |  |  |  |  |  |
| * To what extent does the e-learning environment influence cognitive learning process? * What evidence is there that the desired cognitive processes are occurring as the e-learning environment is used? * Does the e-learning environment and its learning design encourage the desired cognitive learning process? * Can improvements in assessment results be linked to the cognitive learning process fostered by the e-learning environment? * Are learners demonstrating metacognitive and self-regulatory behaviours? * What evidence is apparent of changed thinking behaviour among learners? |  |  |  |  |  |  |  |
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| Effectiveness research of learning outcomes. |  |  |  |  |  |  |  |
| * What knowledge, skills or conceptual understanding have learners developed? * To what extent have learners achieved the expected learning outcomes after engaging with the e-learning environment? * Are improvements apparent in those assessment(s) that are directly based on the desired learning outcomes? * What unintended learning outcomes have occurred? * Are any observed benefits widespread or limited to some learners? |  |  |  |  |  |  |  |
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## Data Source Specification

(Specification of the individual data sources which will provide evidence. List the specific questions relevant to each data source. What other information is required to develop instruments, interview schedules, etc. for each data source? Subsequently expand this description into the instruments, themselves.

## Data Source 1

## Data Source 2