

Assessment form – Master's thesis

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| Name of student | Vincent Clemens Coelestin Göke |
| Title of the Master's thesis | Prototyping Emotions: A Modular Methodological Workshop Toolkit for Teaching Novice Interaction Designers the Creation of Low-Fidelity Single-Modal On-Body Affective Haptic Prototypes in Tandem Teams |

| Remarks | Maximum points | Assessment |
|---|-----------------------|------------|
| Relevance (explanation and justification of the topic including research question) | Max. 5 points | 5 |
| Presentation of current knowledge on the topic | Max. 10 points | 10 |
| Scientific approach or research design | Max. 25 points | 21 |
| Presentation of solution and critical discussion | Max. 20 points | 17 |
| Overall impression of the quality of scientific implementation and of the Master's thesis | Max. 5 points | 4 |
| Summary and outlook | Max. 5 points | 4 |
| Content assessment overall | Max. 70 points | 61 |
| Formal assessment overall | Max. 10 points | 9 |
| Overall assessment | Max. 80 points | 70 |

All assessors must agree on an assessment. If the candidate receives a negative final grade from one of the assessors or on the formal assessment, this means in every case that the Master's thesis will not be approved. Please bear in mind: your assessment concerns only the quality of the content of the Master's thesis; formal correctness and typographical quality will be assessed by the degree programme and included in the assessment of the Master's thesis.

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| 0 to 39 | Insufficient |
| 40 to 50 | Sufficient |
| 51 to 64 | Satisfactory |
| 65 to 73 | Good |
| 74 to 80 | Excellent |

Assessment form – Formal assessment of the Master's thesis (guideline of FHS)

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Suggested length of thesis 20.000 - 24.500 words. Texts can also be shorter, as long as the content criteria are met. Theses that drastically exceed or fall short of this guideline will be evaluated more critically.

The following criteria must be met:

- ☐ The bound version of the thesis corresponds to the version submitted digitally
- ☐ The Master's thesis is formulated in a gender-neutral way
- ☐ The thesis is formally correct (see Chapter 5.1)
- ☐ The citation style satisfies the guidelines in Chapter 5.1 and 5.3
- ☐ The chapter structure meets the requirements
- ☐ git repository for submission is stated in thesis, accessible and complete (LaTeX code or source file, all publications and web pages as pdf; source code, templates and scanned study material; evaluation data,...).

| Formal assessment | Maximum points | Assessment |
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| Typing, spelling, punctuation errors | Max. 3 points | 3 |
| Correct and consistent citation | Max. 3 points | 3 |
| Correct formal structure | Max. 2 points | 2 |
| Readability, layout | Max 2 points | 1 |
| Overall assessment | Max. 10 points | 9 |

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| Formal correctness | Verbal report | |
| <p>Very good structure.</p> <p>Readability and placement of images and not ideal always given (e.g., figure 11 and section 4).</p> <p>Minor comments:</p> <ul style="list-style-type: none"> - Not always are abbreviations introduced before they are first used in text (e.g, AHDS) | | |

Content assessment of the Master's thesis (guideline of FHS)

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|------------------------------|---|
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Relevance (explanation and justification of the topic including research question):

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| | <p>The topic is in principle well introduced but from a very broad angle. The Introduction brings up the topic of haptics rather sudden and then later in the related work goes much deeper into the topic. The introduction in terms of the works motivation in regards to the "affective" part of haptics design could be stronger (is it the transferal of emotions into haptics, is it the technical knowledge,...). Relevance very specific in regards to design research and HCI research focused; But well argued in general.</p> <p>The Problem statement and motivation is a bit hard to grasp in its specifics (what specific challenges do novice interaction designers face when dealing with haptics?). this is then also seemingly partly mixed with the results on the respective research question on the topic later. Later in the introduction the overall positioning and relevance becomes much clearer. The research questions are clearly stated and supported with hypothesis.</p> |
| POINTS ..5... | POINTS (max. 5) |

Presentation of current knowledge on the topic:

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| | <p>In the beginning, an overly broad related work and positioning of work (fourth wave HCI framing a bit too much). Things like situated action, distributed cognition and activity theory are off course relevant, but overly broad in the scope of this thesis.</p> <p>In general well integrated literature. Research field is narrowed down enough for the further take and approach in the thesis. Further, in parts of the related work section there are very good and valid discussion points, however, not always is literature used here to support,</p> |
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| <p>POINTS ..10...</p> | <p>meaning that it reads as the related work section already has a lot of personal reflection already inside.</p> <p>Minor:</p> <ul style="list-style-type: none"> - Not all statements made in the related work section and introduction are well supported with literature and/or a bit underdeveloped (e.g., “As wearable technologies, virtual reality (VR), and immersive interfaces became more prevalent, the potential for haptics to influence emotional states became clear, offering users a more personalized, immersive experience”). This could be due to the placement of references. <p>POINTS (max. 10)</p> |
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Scientific approach or research design:

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| <p>POINTS ..21..</p> | <p>Section 3 methodology is very well explained and with section 4 also the main part of the thesis. The theoretical concepts introduced are positioned well in regards to the research questions and overall aim of the thesis. Rationale behind choosing the tools is clear. Many different approaches and theories are thereby put together which makes everything seem a bit unfocused. But the work delivers on bringing this together in a meaningful concept. In the end, a good multifaceted approach of combining the toolkit is chosen (hardware, conceptual tools, process,...).</p> <p>Research questions, goals and hypotheses are well-described and rationale is clear. The research design in terms of workshop procedure is extremely detailed.</p> <p>Alternatives in regards to tools (both conceptual or hardware) used in the workshop are not very much discussed or touched lightly upon in the related work.</p> <p>Study/workshop testrun:</p> <ul style="list-style-type: none"> - Procedure and participant sample as well as rationale very well described. - Workshop material is made available online and well documented. <p>The research design is well explained and fits the research questions. The main limitation of thesis is that the individual parts of the proposed toolkit are not tested enough in combination (i.e., one workshop was conducted). Thus, the research questions on the e.g. “impact of using embodied metaphors” is limited in scope and can only be answered based on this one instance (the “impact” of some design process aspect would also need a comparison to some extent or require running the process more often).</p> |
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| | <p>While the individual participants' results of, e.g., the body maps and circumplex model of affect are interesting, it's a bit unclear why these are part of the analysis itself and not reflected upon on a meta level in regards to "tool use" (not a problem per se, but not necessary at this point in the paper).</p> <p>RQ 3 - Challenges of novice designers in regards to haptics: while the question is answered with the workshop insights as such, it seems like the order of RQs could also be different here, with having RQ3 as the first RQ being something that can be drawn from related literature and having the toolkit as an answer to that. From reading the text one could ask what the design rationale of the toolkit itself was. This is a partially missing or should have been grounded in e.g., empirical work.</p> <p>Haptic labs kit specifics: Rather unspecific findings regarding usability of the haptics technology (both hard and software). A proposal how this could be specifically enhanced is not made in the thesis.</p> <p>The development process of the toolkit as a whole remains a bit unclear just from reading the text.</p> <p>Structural comment:</p> <ul style="list-style-type: none"> - Section 3 mixes a few lines of what are seemingly results that are reported too early (i.e., method and results are mixed): "The body maps and guiding questions were instrumental in helping participants navigate the design process. They facilitated the translation of subjective emotional experiences into tangible haptic feedback, promoting empathy and alignment between design intent and user experience. This iterative process allowed participants to align their prototypes with emotional concepts such as comfort, safety, and playfulness, ensuring a user-centric design approach.") - Figure placement and order is problematic for readability <p>POINTS (max. 25)</p> |
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Presentation of solution and critical discussion:

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| <p>POINTS ...17...</p> | <p>The insights from the workshop and related contribution is a bit limited as the workshop has only been done once. But the analysis is very in depth and very well done.</p> <p>The contribution of the work lies in applying the tools already available in a structured process. However, adaptations and limitations of the tools at hand are not very much discussed or rather shallow.</p> <p>Claim of approach being “modular”: unfortunately, there is not really a discussion on how the individual parts/modules would work in isolation. So the modularity aspect is not very well reflected upon.</p> <p>Results are discussed very rigorously and detailed.</p> <p>The missing comparison of different methods also has an impact on certain claims made in the results and conclusion. E.g., “The Tools enhanced communication..2. claims like this cannot be made without contrasting different variations of tools or running the workshop in different ways multiple times.</p> <p>The results and answers to RQs are given based on the workshop run and well documented. But any potential iterations of the used tools or the toolkit as such are described rather shallow.</p> <p>Further comments</p> <ul style="list-style-type: none"> - Findings on technical shortcomings of the hardware kit that was used. -> more concrete suggestions for changes could have been framed. <p>POINTS (max. 20)</p> |
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Overall impression of the quality of scientific implementation and of the Master’s thesis

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| <p>POINTS ..4....</p> | <p>The thesis employs a precise, scientific and clear language and develops a critical stance towards the results from the workshop and tools used. The arguments made are comprehensible and the quality of the analysis is good.</p> <p>The contribution of the work lies in applying the tools available in a structured process. However, adaptations and limitations of the tools at hand are not very much discussed as is the design of the toolkit as such. It seems that another step in the research design would have been very much beneficial, first and foremost, taking the workshop insights to iterate on the toolkit and process.</p> <p>POINTS (max. 5)</p> |
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Summary and outlook:

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| <p>POINTS ..4...</p> | <p>The thesis could have benefitted from a clearer positioning of its main contribution in regards to envisioned context of use of the proposed toolkit (ie., toolkit for (design)researchers or used in industry) as well as clearer rationale for the design of the different parts of the toolkit itself. The results are summarized in a clear manner, and the research questions are in general well answered, with the main shortcoming of overly broad suggestions for improvements/alternatives for the individual parts of the toolkit.</p> <p>POINTS (max. 5)</p> |
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Bernhard Maurer

Assessor 1 (Name in block capitals, signature, date)

Mascha Beuthel

Assessor 2 (Name in block capitals, signature, date)