CONSORT-EHEALTH (V 1.6.1) - Submission/Publication Form

The CONSORT-EHEALTH checklist is intended for authors of randomized trials evaluating web-based and Internet-based applications/interventions, including mobile interventions, electronic games (incl multiplayer games), social media, certain telehealth applications, and other interactive and/or networked electronic applications. Some of the items (e.g. all subitems under item 5 - description of the intervention) may also be applicable for other study designs.

The goal of the CONSORT EHEALTH checklist and guideline is to be

- a) a guide for reporting for authors of RCTs,
- b) to form a basis for appraisal of an ehealth trial (in terms of validity)

CONSORT-EHEALTH items/subitems are MANDATORY reporting items for studies published in the Journal of Medical Internet Research and other journals / scientific societies endorsing the checklist.

Items numbered 1., 2., 3., 4a., 4b etc are original CONSORT or CONSORT-NPT (non-pharmacologic treatment) items.

Items with Roman numerals (i., ii, iii, iv etc.) are CONSORT-EHEALTH extensions/clarifications.

As the CONSORT-EHEALTH checklist is still considered in a formative stage, we would ask that you also RATE ON A SCALE OF 1-5 how important/useful you feel each item is FOR THE PURPOSE OF THE CHECKLIST and reporting guideline (optional).

Mandatory reporting items are marked with a red *.

In the textboxes, either copy & paste the relevant sections from your manuscript into this form - please include any quotes from your manuscript in QUOTATION MARKS, or answer directly by providing additional information not in the manuscript, or elaborating on why the item was not relevant for this study.

YOUR ANSWERS WILL BE PUBLISHED AS A SUPPLEMENTARY FILE TO YOUR PUBLICATION IN JMIR AND ARE CONSIDERED PART OF YOUR PUBLICATION (IF ACCEPTED).

Please fill in these questions diligently. Information will not be copyedited, so please use proper spelling and grammar, use correct capitalization, and avoid abbreviations.

DO NOT FORGET TO SAVE AS PDF _AND_ CLICK THE SUBMIT BUTTON SO YOUR ANSWERS ARE IN OUR DATABASE !!!

Citation Suggestion (if you append the pdf as Appendix we suggest to cite this paper in the caption):

Eysenbach G, CONSORT-EHEALTH Group

CONSORT-EHEALTH: Improving and Standardizing Evaluation Reports of Web-based and Mobile Health Interventions

J Med Internet Res 2011;13(4):e126

URL: <http://www.jmir.org/2011/4/e126/>

doi: 10.2196/jmir.1923
PMID: 22209829

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Entwurf gespeichert

*** Erforderlich**

Your name *

First Last

Elena Schnieders

Primary Affiliation (short), City, Country *

University of Toronto, Toronto, Canada

University of Heidelberg, Institute of Global He

Your e-mail address *

abc@gmail.com

Title of your manuscript *

Provide the (draft) title of your manuscript.

Real-life Evaluation of an Interactive vs. Non-interactive E-learning module on Chronic Obstructive Pulmonary Disease for Medical Licentiate Students in Zambia: Web-based Mixed Methods Randomized Controlled Trial

Name of your App/Software/Intervention *

If there is a short and a long/alternate name, write the short name first and add the long name in brackets.

Interactive and Non-interactive e-learning mod

Evaluated Version (if any)

e.g. "V1", "Release 2017-03-01", "Version 2.0.27913"

Meine Antwort

Language(s) *

What language is the intervention/app in? If multiple languages are available, separate by comma (e.g. "English, French")

English

URL of your Intervention Website or App

e.g. a direct link to the mobile app on app in appstore (itunes, Google Play), or URL of the website. If the intervention is a DVD or hardware, you can also link to an Amazon page.

Meine Antwort

URL of an image/screenshot (optional)

Meine Antwort

Geben Sie eine gültige URL ein.

Accessibility *

Can an enduser access the intervention presently?

- ☐ access is free and open
- ☒ access only for special usergroups, not open
- ☐ access is open to everyone, but requires payment/subscription/in-app purchases
- ☐ app/intervention no longer accessible
- ☐ Sonstiges:

Primary Medical Indication/Disease/Condition *

e.g. "Stress", "Diabetes", or define the target group in brackets after the condition, e.g. "Autism (Parents of children with)", "Alzheimers (Informal Caregivers of)"

Chronic obstructive pulmonary disease (COPD)

Primary Outcomes measured in trial *

comma-separated list of primary outcomes reported in the trial

User satisfaction

Secondary/other outcomes

Are there any other outcomes the intervention is expected to affect?

System usability, short-term knowledge, long-term knowledge, barriers to e-learning

Recommended "Dose" *

What do the instructions for users say on how often the app should be used?

- ☐ Approximately Daily
- ☐ Approximately Weekly
- ☐ Approximately Monthly
- ☐ Approximately Yearly
- ☒ "as needed"
- ☐ Sonstiges:

Approx. Percentage of Users (starters) still using the app as recommended after 3 months *

- ☒ unknown / not evaluated
- ☐ 0-10%
- ☐ 11-20%
- ☐ 21-30%
- ☐ 31-40%
- ☐ 41-50%
- ☐ 51-60%
- ☐ 61-70%
- ☐ 71%-80%
- ☐ 81-90%
- ☐ 91-100%
- ☐ Sonstiges:

Overall, was the app/intervention effective? *

- ☐ yes: all primary outcomes were significantly better in intervention group vs control
- ☐ partly: SOME primary outcomes were significantly better in intervention group vs control
- ☒ no statistically significant difference between control and intervention
- ☐ potentially harmful: control was significantly better than intervention in one or more outcomes
- ☐ inconclusive: more research is needed
- ☐ Sonstiges:

Article Preparation Status/Stage *

At which stage in your article preparation are you currently (at the time you fill in this form)

- ☐ not submitted yet - in early draft status
- ☐ not submitted yet - in late draft status, just before submission
- ☐ submitted to a journal but not reviewed yet
- ☒ submitted to a journal and after receiving initial reviewer comments
- ☐ submitted to a journal and accepted, but not published yet
- ☐ published
- ☐ Sonstiges:

Journal *

If you already know where you will submit this paper (or if it is already submitted), please provide the journal name (if it is not JMIR, provide the journal name under "other")

- ☒ not submitted yet / unclear where I will submit this
- ☐ Journal of Medical Internet Research (JMIR)
- ☐ JMIR mHealth and UHealth
- ☐ JMIR Serious Games
- ☐ JMIR Mental Health
- ☐ JMIR Public Health
- ☐ JMIR Formative Research
- ☐ Other JMIR sister journal
- ☐ Sonstiges:

Is this a full powered effectiveness trial or a pilot/feasibility trial? *

- ☐ Pilot/feasibility
- ☒ Fully powered

Manuscript tracking number *

If this is a JMIR submission, please provide the manuscript tracking number under "other" (The ms tracking number can be found in the submission acknowledgement email, or when you login as author in JMIR. If the paper is already published in JMIR, then the ms tracking number is the four-digit number at the end of the DOI, to be found at the bottom of each published article in JMIR)

- ☐ no ms number (yet) / not (yet) submitted to / published in JMIR
- ☒ Sonstiges: ms #34751

TITLE AND ABSTRACT

1a) TITLE: Identification as a randomized trial in the title**1a) Does your paper address CONSORT item 1a? ***

I.e does the title contain the phrase "Randomized Controlled Trial"? (if not, explain the reason under "other")

yes

Sonstiges:

1a-i) Identify the mode of delivery in the title

Identify the mode of delivery. Preferably use "web-based" and/or "mobile" and/or "electronic game" in the title. Avoid ambiguous terms like "online", "virtual", "interactive". Use "Internet-based" only if Intervention includes non-web-based Internet components (e.g. email), use "computer-based" or "electronic" only if offline products are used. Use "virtual" only in the context of "virtual reality" (3-D worlds). Use "online" only in the context of "online support groups". Complement or substitute product names with broader terms for the class of products (such as "mobile" or "smart phone" instead of "iphone"), especially if the application runs on different platforms.

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subitem not at all important

essential

Auswahl löschen

Does your paper address subitem 1a-i? *

Copy and paste relevant sections from manuscript title (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Real-life Evaluation of an Interactive vs. Non-interactive E-learning module on Chronic Obstructive Pulmonary Disease for Medical Licentiate Students in Zambia: Web-based Mixed Methods Randomized Controlled Trial": The title contains the word "web-based". The word "interactive" had to be used but is elaborated in the abstract and introduction.

1a-ii) Non-web-based components or important co-interventions in title

Mention non-web-based components or important co-interventions in title, if any (e.g., "with telephone support").

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subitem not at all important ☒ ☐ ☐ ☐ ☐ essential

Auswahl löschen

Does your paper address subitem 1a-ii?

Copy and paste relevant sections from manuscript title (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

There are no non-web-based components.

1a-iii) Primary condition or target group in the title

Mention primary condition or target group in the title, if any (e.g., "for children with Type I Diabetes")
Example: A Web-based and Mobile Intervention with Telephone Support for Children with Type I Diabetes: Randomized Controlled Trial

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subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 1a-iii? *

Copy and paste relevant sections from manuscript title (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

This subitem is addressed: "on Chronic Obstructive Pulmonary Disease for Medical Licentiate Students in Zambia"

1b) ABSTRACT: Structured summary of trial design, methods, results, and conclusions

NPT extension: Description of experimental treatment, comparator, care providers, centers, and blinding status.

1b-i) Key features/functionalities/components of the intervention and comparator in the METHODS section of the ABSTRACT

Mention key features/functionalities/components of the intervention and comparator in the abstract. If possible, also mention theories and principles used for designing the site. Keep in mind the needs of systematic reviewers and indexers by including important synonyms. (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 1b-i? *

Copy and paste relevant sections from the manuscript abstract (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Key features of both groups are mentioned in the abstract:

Introduction: "Asynchronous e-learning can be grouped into interactive, meaning user influenceable content, and non-interactive, static material."

Methods: "The interactive module included interactive interfaces, quizzes, and a virtual patient, whereas the non-interactive module consisted of PowerPoint slides. Both modules comprised the same scope of content."

1b-ii) Level of human involvement in the METHODS section of the ABSTRACT

Clarify the level of human involvement in the abstract, e.g., use phrases like “fully automated” vs. “therapist/nurse/care provider/physician-assisted” (mention number and expertise of providers involved, if any). (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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subitem not at all important	☐	☐	☐	☒	☐	essential

Auswahl löschen

Does your paper address subitem 1b-ii?

Copy and paste relevant sections from the manuscript abstract (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

There was no human-involvement, as the e-learning was asynchronous and there was no teacher: "and randomized them to undergo asynchronous e-learning with an interactive or non-interactive module on chronic obstructive pulmonary disease."

1b-iii) Open vs. closed, web-based (self-assessment) vs. face-to-face assessments in the METHODS section of the ABSTRACT

Mention how participants were recruited (online vs. offline), e.g., from an open access website or from a clinic or a closed online user group (closed usergroup trial), and clarify if this was a purely web-based trial, or there were face-to-face components (as part of the intervention or for assessment). Clearly say if outcomes were self-assessed through questionnaires (as common in web-based trials). Note: In traditional offline trials, an open trial (open-label trial) is a type of clinical trial in which both the researchers and participants know which treatment is being administered. To avoid confusion, use “blinded” or “unblinded” to indicated the level of blinding instead of “open”, as “open” in web-based trials usually refers to “open access” (i.e. participants can self-enrol). (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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Auswahl löschen

Does your paper address subitem 1b-iii?

Copy and paste relevant sections from the manuscript abstract (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

The trial was purely web-based: "We conducted a web-based, mixed methods randomized controlled trial"

Participants were recruited via email: "We recruited Medical Licentiate students (second, third and fourth study year) via email"

Participants were informally blinded as they did not know which e-learning methods were being compared: "Participants were informally blinded towards their group allocation." This was also elaborated in more detail in the method section.

Outcomes were self-assessed through questionnaires: "quantitative findings, which were evaluated via online questionnaires"

1b-iv) RESULTS section in abstract must contain use data

Report number of participants enrolled/assessed in each group, the use/uptake of the intervention (e.g., attrition/adherence metrics, use over time, number of logins etc.), in addition to primary/secondary outcomes. (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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Auswahl löschen

Does your paper address subitem 1b-iv?

Copy and paste relevant sections from the manuscript abstract (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

The number of enrolled participants and assessed participants is mentioned. The number of participants that used the intervention is mentioned as well. The primary outcome with outcome measures and secondary outcomes are named: "Initially, n=94 study participants were enrolled in the study, of which n=41 (44%) (18 intervention/23 control) remained in the study and thus were analyzed. There were no significant differences in satisfaction ((median (Q1, Q3)), intervention: 33.5 (31.3, 35), control: 33 (30, 37.5); p=0.66), usability or knowledge gain between intervention and control group."

1b-v) CONCLUSIONS/DISCUSSION in abstract for negative trials

Conclusions/Discussions in abstract for negative trials: Discuss the primary outcome - if the trial is negative (primary outcome not changed), and the intervention was not used, discuss whether negative results are attributable to lack of uptake and discuss reasons. (Note: Only report in the abstract what the main paper is reporting. If this information is missing from the main body of text, consider adding it)

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Auswahl löschen

Does your paper address subitem 1b-v?

Copy and paste relevant sections from the manuscript abstract (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

The primary outcome and the negative trial results, as well as possible reasons are mentioned: "An increase in user satisfaction with interactive e-learning could not be shown under our study conditions. However, this result may not be generalizable for other low-resource settings as the post-hoc power was low, and the e-learning system at LMMU has not yet reached its full potential. Consequently, access barriers to e-learning, of technical and individual nature, may have affected the results, particularly as the interactive module was deemed harder to access and use."

INTRODUCTION**2a) In INTRODUCTION: Scientific background and explanation of rationale**

2a-i) Problem and the type of system/solution

Describe the problem and the type of system/solution that is object of the study: intended as stand-alone intervention vs. incorporated in broader health care program? Intended for a particular patient population? Goals of the intervention, e.g., being more cost-effective to other interventions, replace or complement other solutions? (Note: Details about the intervention are provided in "Methods" under 5)

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subitem not at all important	☐	☐	☐	☒	☐	essential

Auswahl löschen

Does your paper address subitem 2a-i? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

There are few studies evaluating interactive e-learning in LMICs, therefore we wanted to evaluate learning outcomes with interactive and non-interactive e-learning within the ML program to better understand teaching quality: "As per findings of previous studies, our hypothesis was that an interactive e-learning module would be more effective to increase learner's satisfaction and knowledge gain than a non-interactive module. It has to be noted, that most previous studies were conducted in HICs and not in a low-income setting." "The overarching objective of this web-based study was to compare learning outcomes from an interactive and non-interactive e-learning module on the topic of COPD for ML students" "The aim was to improve understanding of real-life e-learning quality and delivery at LMMU."

2a-ii) Scientific background, rationale: What is known about the (type of) system

Scientific background, rationale: What is known about the (type of) system that is the object of the study (be sure to discuss the use of similar systems for other conditions/diagnoses, if appropriate), motivation for the study, i.e. what are the reasons for and what is the context for this specific study, from which stakeholder viewpoint is the study performed, potential impact of findings [2]. Briefly justify the choice of the comparator.

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subitem not at all important	☐	☐	☐	☒	☐	essential

Auswahl löschen

Does your paper address subitem 2a-ii? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

There are very few studies comparing interactive and non-interactive e-learning in LMICs, therefore most knowledge about the effectiveness of interactive e-learning originated from HICs. "In health education research interactive e-learning is often deemed more effective than non-interactive e-learning: several studies in HICs have shown a positive effect of interactive e-learning on user satisfaction or knowledge when compared to non-interactive e-learning" "However, studies comparing an interactive e-learning method with a non-interactive e-learning method for health care personal in LMICs are rare, which potentially makes assumptions on the effectiveness of interactive e-learning in LMICs difficult for lecturers and other stakeholders." The insufficient knowledge about the impact of interactive e-learning in LMICs but also the need for multimedia content at LMMU were motivation for this study: "Another shortcoming was the low availability of diverse and multimedia e-learning content, as mainly non-interactive material was available...A goal for this study was to contribute to the multimedia e-learning contents at LMMU" Potential impacts of the findings were to "improve understanding of real-life e-learning quality and delivery at LMMU." The comparator non-interactive e-learning was chosen as that is the current e-learning standard at LMMU.

2b) In INTRODUCTION: Specific objectives or hypotheses

Does your paper address CONSORT subitem 2b? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Objectives and hypotheses are mentioned: Objectives: "The overarching objective of this web-based study was to compare learning outcomes from an interactive and non-interactive e-learning module on the topic of COPD for ML students following a mixed methods randomized controlled trial (RCT). The aim was to improve understanding of real-life e-learning quality and delivery at LMMU." Hypotheses: "As per findings of previous studies, our hypothesis was that an interactive e-learning module would be more effective to increase learner's satisfaction and knowledge gain than a non-interactive module. It has to be noted, that most previous studies were conducted in HICs and not in a low-income setting."

METHODS

3a) Description of trial design (such as parallel, factorial) including allocation ratio

Does your paper address CONSORT subitem 3a? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"This mixed-methods study uses an explanatory sequential design in which qualitative findings are used to clarify the quantitative results." "The RCT with an allocation ratio of 1:1" "The study design aimed to evaluate interactive and non-interactive e-learning in a real-life setting, meaning no study related and specific e-learning training was provided"

3b) Important changes to methods after trial commencement (such as eligibility criteria), with reasons

Does your paper address CONSORT subitem 3b? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

No more changes to the methods were done after trial commencement. The e-learning material was not changed after study start: "Changes were incorporated prior to study start, after which no more changes were made."

3b-i) Bug fixes, Downtimes, Content Changes

Bug fixes, Downtimes, Content Changes: ehealth systems are often dynamic systems. A description of changes to methods therefore also includes important changes made on the intervention or comparator during the trial (e.g., major bug fixes or changes in the functionality or content) (5-iii) and other "unexpected events" that may have influenced study design such as staff changes, system failures/downtimes, etc. [2].

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subitem not at all important ☐ ☐ ☒ ☐ ☐ essential

Auswahl löschen

Does your paper address subitem 3b-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"The e-learning platform was down for a few hours on the 4th and 7th of May 2021, but the study participants were given until the 31st of May 2021 to complete these tasks"
Some students had e-learning access problems, for which we aimed to find solutions: "In case of non-solvable technical difficulties with the e-learning platform or the internet, individual students were sent a link to their respective e-learning module which was uploaded onto the cloud or students of the control group received a PDF file. The latter was not possible for students of the intervention group, as the interactive presentation could not be saved as a PDF file."

4a) Eligibility criteria for participants

Does your paper address CONSORT subitem 4a? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"ML students in their second, third and fourth year of the Bachelor of Clinical Sciences program at LMMU were invited to participate."

4a-i) Computer / Internet literacy

Computer / Internet literacy is often an implicit "de facto" eligibility criterion - this should be explicitly clarified.

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subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 4a-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"It was assumed that existing knowledge on COPD was low and that all students had computer literacy, as technology experience of ML students was assessed to be moderate in 2017"

4a-ii) Open vs. closed, web-based vs. face-to-face assessments:

Open vs. closed, web-based vs. face-to-face assessments: Mention how participants were recruited (online vs. offline), e.g., from an open access website or from a clinic, and clarify if this was a purely web-based trial, or there were face-to-face components (as part of the intervention or for assessment), i.e., to what degree got the study team to know the participant. In online-only trials, clarify if participants were quasi-anonymous and whether having multiple identities was possible or whether technical or logistical measures (e.g., cookies, email confirmation, phone calls) were used to detect/prevent these.

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subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 4a-ii? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Recruitment was done via e-mail: "All eligible students were invited to participate via email on the 20th of April 2021" "The email addresses were obtained from the ML course coordinator (AS)" "Students willing to participate sent their informed consent via email." This trial was purely web-based: "With the support of local study team members (AS and PA) and the local study coordinator (MM), the main investigator (ES) led the recruitment, randomization, and the actual implementation of the trial from Germany. This was possible as everything was conducted online due to the COVID-19 pandemic." As the recruitment was done via email and with the names of all eligible students, and the e-learning module was uploaded to the students' individual e-learning platform accounts, having multiple identities was not possible "Study participants only had access to their respective e-learning module."

4a-iii) Information giving during recruitment

Information given during recruitment. Specify how participants were briefed for recruitment and in the informed consent procedures (e.g., publish the informed consent documentation as appendix, see also item X26), as this information may have an effect on user self-selection, user expectation and may also bias results.

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subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 4a-iii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were informally blinded towards their group allocation for the first study part, as it was not stated in the information sheet which e-learning methods were being compared."

4b) Settings and locations where the data were collected**Does your paper address CONSORT subitem 4b? ***

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Data was collected with an online questionnaire: "After finishing the module, each participant was directly invited to complete the online user satisfaction, SUS and KT1 questionnaires"

Qualitative data was collected with two rating conferences: "Approximately two weeks after the first study period, on the 16th and 17th of June 2021, two rating conferences took place via Zoom"

4b-i) Report if outcomes were (self-)assessed through online questionnaires

Clearly report if outcomes were (self-)assessed through online questionnaires (as common in web-based trials) or otherwise.

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subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 4b-i? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Yes, outcomes were assessed with an online questionnaire: "After finishing the module, each participant was directly invited to complete the online user satisfaction, SUS and KT1 questionnaires"

4b-ii) Report how institutional affiliations are displayed

Report how institutional affiliations are displayed to potential participants [on ehealth media], as affiliations with prestigious hospitals or universities may affect volunteer rates, use, and reactions with regards to an intervention. (Not a required item – describe only if this may bias results)

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subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 4b-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Participants knew that the study was a cooperation between LMMU and Heidelberg University, we do not however believe that that has induced bias.

5) The interventions for each group with sufficient details to allow replication, including how and when they were actually administered

5-i) Mention names, credential, affiliations of the developers, sponsors, and owners

Mention names, credential, affiliations of the developers, sponsors, and owners [6] (if authors/evaluators are owners or developer of the software, this needs to be declared in a "Conflict of interest" section or mentioned elsewhere in the manuscript).

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subitem not at all important	☐	☐	☐	☒	☐	essential

Auswahl löschen

Does your paper address subitem 5-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

The developers of the modules were named: "With the aid of (FN), who received training at the Centre for key competencies in didactics at Heidelberg University, (ES) developed the two e-learning modules." The developer was also the main investigator which was mentioned in the limitations, however she was not the software developer: "Additionally, the e-learning content was developed by the main investigator, which could have affected the results" Under conflicts of interest: "Additionally, the main investigator developed both e-learning modules."

5-ii) Describe the history/development process

Describe the history/development process of the application and previous formative evaluations (e.g., focus groups, usability testing), as these will have an impact on adoption/use rates and help with interpreting results.

	1	2	3	4	5	
subitem not at all important	☐	☐	☐	☒	☐	essential

Auswahl löschen

Does your paper address subitem 5-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Three study team members (FN, PA, and ES) tested the online e-learning material before the trial on different digital devices, like desktop computers and smartphones. Changes were incorporated prior to study start, after which no more changes were made."

5-iii) Revisions and updating

Revisions and updating. Clearly mention the date and/or version number of the application/intervention (and comparator, if applicable) evaluated, or describe whether the intervention underwent major changes during the evaluation process, or whether the development and/or content was "frozen" during the trial. Describe dynamic components such as news feeds or changing content which may have an impact on the replicability of the intervention (for unexpected events see item 3b).

1 2 3 4 5

subitem not at all important ☐ ☐ ☒ ☐ ☐ essential

Auswahl löschen

Does your paper address subitem 5-iii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Changes were incorporated prior to study start, after which no more changes were made."
There was no dynamic component in the e-learning modules.

5-iv) Quality assurance methods

Provide information on quality assurance methods to ensure accuracy and quality of information provided [1], if applicable.

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 5-iv?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Quality of information was ensured by using the GOLD report 2021 as a source, as this report is an internationally recognized information source for COPD. Additionally, pneumological experts evaluated both modules. "Both modules contained key information of the GOLD report 2021, specialist literature and pulmonological experts [25, 38]. The GOLD report is a document published annually that summarizes global information on COPD through the latest scientific literature. Essential knowledge on COPD definition, epidemiology, etiology, symptoms, diagnosis, severity assessment, differential diagnosis, therapy, and prognosis were included in the e-learning modules at the level deemed appropriate according to the curriculum of the ML program. By continuously comparing slides on subtopics and coping and pasting information from one module to the other, it was ensured that both modules comprised the same scope of content."

5-v) Ensure replicability by publishing the source code, and/or providing screenshots/screen-capture video, and/or providing flowcharts of the algorithms used

Ensure replicability by publishing the source code, and/or providing screenshots/screen-capture video, and/or providing flowcharts of the algorithms used. Replicability (i.e., other researchers should in principle be able to replicate the study) is a hallmark of scientific reporting.

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 5-v?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Screenshots of all pages of both study modules are provided in multimedia appendix 2 and 3.

5-vi) Digital preservation

Digital preservation: Provide the URL of the application, but as the intervention is likely to change or disappear over the course of the years; also make sure the intervention is archived (Internet Archive, [webcitation.org](https://www.webcitation.org), and/or publishing the source code or screenshots/videos alongside the article). As pages behind login screens cannot be archived, consider creating demo pages which are accessible without login.

1 2 3 4 5

subitem not at all important ☐ ☐ ☒ ☐ ☐ essential

Auswahl löschen

Does your paper address subitem 5-vi?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Screenshots of all pages of both study modules are provided in multimedia appendix 2 and 3.

5-vii) Access

Access: Describe how participants accessed the application, in what setting/context, if they had to pay (or were paid) or not, whether they had to be a member of specific group. If known, describe how participants obtained "access to the platform and Internet" [1]. To ensure access for editors/reviewers/readers, consider to provide a "backdoor" login account or demo mode for reviewers/readers to explore the application (also important for archiving purposes, see vi).

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 5-vii? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Participants had to be "ML students in their second, third and fourth year of the Bachelor of Clinical Sciences program at LMMU". "Given the e-learning implementation in 2016/2017, it was assumed that all students had access to the e-learning platform and to electronic devices" "Following randomization, the participants were invited on the 1st of May 2021 to take part in their respective e-learning module which was made accessible using their e-learning platform account." Providing a backdoor login account is unfortunately not possible, however both modules were preserved as screenshots, which can be viewed in multimedia appendices 2 and 3.

5-viii) Mode of delivery, features/functionalities/components of the intervention and comparator, and the theoretical framework

Describe mode of delivery, features/functionalities/components of the intervention and comparator, and the theoretical framework [6] used to design them (instructional strategy [1], behaviour change techniques, persuasive features, etc., see e.g., [7, 8] for terminology). This includes an in-depth description of the content (including where it is coming from and who developed it) [1], "whether [and how] it is tailored to individual circumstances and allows users to track their progress and receive feedback" [6]. This also includes a description of communication delivery channels and – if computer-mediated communication is a component – whether communication was synchronous or asynchronous [6]. It also includes information on presentation strategies [1], including page design principles, average amount of text on pages, presence of hyperlinks to other resources, etc. [1].

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 5-viii? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

The mode of delivery was asynchronous: "The e-learning module could be studied asynchronously with the e-learning platform and with the e-learning platform application" "It was possible to contact the main investigator via email and local study coordinator during the entire study"

Features, theoretical framework, presentation strategies and content of both modules are described thoroughly in the method section and were tailored to the curriculum of the ML program:

"Content

Both modules contained key information of the GOLD report 2021, specialist literature and pulmonological experts [25, 38]. The GOLD report is a document published annually that summarizes global information on COPD through the latest scientific literature. Essential knowledge on COPD definition, epidemiology, etiology, symptoms, diagnosis, severity assessment, differential diagnosis, therapy, and prognosis were included in the e-learning modules at the level deemed appropriate according to the curriculum of the ML program. By continuously comparing slides on subtopics and coping and pasting information from one module to the other, it was ensured that both modules comprised the same scope of content.

Standard material – non-interactive

The non-interactive e-learning module on COPD for the control group included an average of 5 bullet points per slide with several figures and tables (see multimedia appendix 2 for screenshots of the non-interactive module).

Interactive material

The intervention group was given access to an interactive e-learning module with a voice over and designed with iSpring Suite (see multimedia appendix 3 for screenshots of the interactive module) [39]. The interactive module was composed of a simple interactive environment which mostly allowed the user to control representation of information and receive predetermined feedback to activities [9]. In more detail the interactive module included the following items sorted from representation control to obtaining feedback: interactive interfaces including drag and drop options, interactive x-ray images to be explored with the cursor, a puzzle, a 10-step virtual patient including different question paths representing a typical COPD exacerbation case, and three short multiple-choice quizzes, for which participants received feedback. Furthermore, principles of adult learning from Taylor & Hossam were incorporated in the module [40]. For example, several times the learner had to complete certain tasks, which challenged existing knowledge on COPD and might have put the learner in a 'dissonance phase', as existing knowledge might have been incomplete. This 'dissonance phase' was then followed by a 'refinement phase' where the learner received information on the solution of the problem."

5-ix) Describe use parameters

Describe use parameters (e.g., intended "doses" and optimal timing for use). Clarify what instructions or recommendations were given to the user, e.g., regarding timing, frequency, heaviness of use, if any, or was the intervention used ad libitum.

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subitem not at all important	☐	☐	☐	☐	☒	essential

Auswahl löschen

Does your paper address subitem 5-ix?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were informed that completing the e-learning module and filling the questionnaires would take around 45 minutes, but no time limit was set" "Participation reminders were sent on the 7th, 11th, and 20th of May 2021, as well as through local study team members via the class representatives. The e-learning platform was down for a few hours on the 4th and 7th of May 2021, but the study participants were given until the 31st of May 2021 to complete these tasks."

5-x) Clarify the level of human involvement

Clarify the level of human involvement (care providers or health professionals, also technical assistance) in the e-intervention or as co-intervention (detail number and expertise of professionals involved, if any, as well as "type of assistance offered, the timing and frequency of the support, how it is initiated, and the medium by which the assistance is delivered". It may be necessary to distinguish between the level of human involvement required for the trial, and the level of human involvement required for a routine application outside of a RCT setting (discuss under item 21 – generalizability).

	1	2	3	4	5	
subitem not at all important	☐	☐	☒	☐	☐	essential

Auswahl löschen

Does your paper address subitem 5-x?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

There was no direct human involvement during the completion of the e-learning modules: "The e-learning module could be studied asynchronously with the e-learning platform and with the e-learning platform application" However, it was possible to contact study team members in case of problems: "- It was possible to contact the main investigator via email and local study coordinator during the entire study. In case of non-solvable technical difficulties with the e-learning platform or the internet, individual students were sent a link to their respective e-learning module which was uploaded onto the cloud or students of the control group received a PDF file." As the study assessed a real-life setting (no study related training), the level of human involvement in the trial would probably match the level of human involvement outside a RCT setting.

5-xi) Report any prompts/reminders used

Report any prompts/reminders used: Clarify if there were prompts (letters, emails, phone calls, SMS) to use the application, what triggered them, frequency etc. It may be necessary to distinguish between the level of prompts/reminders required for the trial, and the level of prompts/reminders for a routine application outside of a RCT setting (discuss under item 21 – generalizability).

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 5-xi? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participation reminders were sent on the 7th, 11th, and 20th of May 2021, as well as through local study team members via the class representatives."

5-xii) Describe any co-interventions (incl. training/support)

Describe any co-interventions (incl. training/support): Clearly state any interventions that are provided in addition to the targeted eHealth intervention, as ehealth intervention may not be designed as stand-alone intervention. This includes training sessions and support [1]. It may be necessary to distinguish between the level of training required for the trial, and the level of training for a routine application outside of a RCT setting (discuss under item 21 – generalizability).

1 2 3 4 5

subitem not at all important ☐ ☐ ☒ ☐ ☐ essential

Auswahl löschen

Does your paper address subitem 5-xii? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

There were no co-interventions (apart from the already established e-learning system), as the study wanted to assess a real-life setting: "E-learning at the Chainama College of Health Sciences, now part of LMMU, was successfully implemented in 2016/2017. The study design aimed to evaluate interactive and non-interactive e-learning in a real-life setting, meaning no study related and specific e-learning training was provided"

6a) Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed

Does your paper address CONSORT subitem 6a? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

All outcomes were specified: "The primary outcome was learner-satisfaction based on the comparison of the interactive and non-interactive e-learning modules. Secondary outcomes were system usability, short-term and long-term knowledge gain. An added outcome, after study initiation were identified barriers to asynchronous e-learning, as feedback from participants revealed usability issues. These endpoints were determined quantitatively with questionnaires using an online survey tool and qualitatively with two rating conferences conducted via Zoom." Under Phase 1+2+3 in the method section state when these outcomes were assessed: Phase 1: "After finishing the module, each participant was directly invited to complete the online user satisfaction, SUS and KT1 questionnaires." Phase 2: "Four weeks after the Phase 1, on the 28th of June 2021, first part participants were invited to complete the KT2." Phase 3: "Approximately two weeks after the first study period, on the 16th and 17th of June 2021, two rating conferences took place via Zoom."

6a-i) Online questionnaires: describe if they were validated for online use and apply CHERRIES items to describe how the questionnaires were designed/deployed

If outcomes were obtained through online questionnaires, describe if they were validated for online use and apply CHERRIES items to describe how the questionnaires were designed/deployed [9].

	1	2	3	4	5	
subitem not at all important	☐	☐	☐	☐	☒	essential

Auswahl löschen

Does your paper address subitem 6a-i?

Copy and paste relevant sections from manuscript text

The CHERRIES items were applied. "This study adheres to the CHERRIES checklist" The user satisfaction and knowledge questions were not validated as stated in the discussion: "Finally, as the eight selected user satisfaction questions were not validated, they may have not accurately portrayed user satisfaction." "However, another possibility is that the knowledge tests were not measuring the true knowledge as they were not validated tests". The system usability scale was however validated: "The usability of the modules was tested according to the System Usability Scale (SUS), a validated usability score from 0-100, in which 68 could be interpreted as average according to a curved grading scale."

6a-ii) Describe whether and how "use" (including intensity of use/dosage) was defined/measured/monitored

Describe whether and how "use" (including intensity of use/dosage) was defined/measured/monitored (logins, logfile analysis, etc.). Use/adoption metrics are important process outcomes that should be reported in any ehealth trial.

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 6a-ii?

Copy and paste relevant sections from manuscript text

"Use" was measured as such: "By filling out the online questionnaires, participants were considered to have completed their respective e-learning module, as their login information to the e-learning module was not verified"

Table 2 reports the use metric "Self-reported time for e-learning module (minutes)".

6a-iii) Describe whether, how, and when qualitative feedback from participants was obtained

Describe whether, how, and when qualitative feedback from participants was obtained (e.g., through emails, feedback forms, interviews, focus groups).

	1	2	3	4	5	
subitem not at all important	☐	☐	☐	☐	☒	essential

Auswahl löschen

Does your paper address subitem 6a-iii?

Copy and paste relevant sections from manuscript text

As this was a mixed-methods study, qualitative feedback was obtained via two rating conference. See method and result section on qualitative evaluation.

6b) Any changes to trial outcomes after the trial commenced, with reasons

Does your paper address CONSORT subitem 6b? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"An added outcome, after study initiation were identified barriers to asynchronous e-learning, as feedback from participants revealed usability issues."

7a) How sample size was determined

NPT: When applicable, details of whether and how the clustering by care provides or centers was addressed

7a-i) Describe whether and how expected attrition was taken into account when calculating the sample size

Describe whether and how expected attrition was taken into account when calculating the sample size.

	1	2	3	4	5	
subitem not at all important	☐	☐	☐	☒	☐	essential

Auswahl löschen

Does your paper address subitem 7a-i?

Copy and paste relevant sections from manuscript title (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"As there are only around 200 ML students in their second, third and fourth year at LMMU, instead of a sample size calculation, a convenience sample of all eligible students was chosen. Considering consent and attrition rates, a sample size of approximately 50 participants was deemed feasible."

7b) When applicable, explanation of any interim analyses and stopping guidelines

Does your paper address CONSORT subitem 7b? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

There were no interim analyses and stopping guidelines, therefore this item is not applicable.

8a) Method used to generate the random allocation sequence

NPT: When applicable, how care providers were allocated to each trial group

Does your paper address CONSORT subitem 8a? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Students willing to participate sent their informed consent via email. Afterwards all participating students were equally randomized into intervention and control group with the random number function in Excel and a blocked randomization list with a block size of two participants."

8b) Type of randomisation; details of any restriction (such as blocking and block size)**Does your paper address CONSORT subitem 8b? ***

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Students willing to participate sent their informed consent via email. Afterwards all participating students were equally randomized into intervention and control group with the random number function in Excel and a blocked randomization list with a block size of two participants."

9) Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned**Does your paper address CONSORT subitem 9? ***

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

After final study sample was determined (all students that had agreed via email), the participants were all randomized at once. (See 8a for randomization process)

10) Who generated the random allocation sequence, who enrolled participants, and who assigned participants to interventions

Does your paper address CONSORT subitem 10? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

The main study operator enrolled, randomized and assigned the participants: "With the support of local study team members (AS and PA) and the local study coordinator (MM), the main investigator (ES) led the recruitment, randomization, and the actual implementation of the trial from Germany."

11a) If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how

NPT: Whether or not administering co-interventions were blinded to group assignment

11a-i) Specify who was blinded, and who wasn't

Specify who was blinded, and who wasn't. Usually, in web-based trials it is not possible to blind the participants [1, 3] (this should be clearly acknowledged), but it may be possible to blind outcome assessors, those doing data analysis or those administering co-interventions (if any).

	1	2	3	4	5	
subitem not at all important	☐	☐	☒	☐	☐	essential

Auswahl löschen

Does your paper address subitem 11a-i? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were informally blinded towards their group allocation for the first study part, as it was not stated in the information sheet which e-learning methods were being compared". The main study operator (also main data analyst) was not blinded.

11a-ii) Discuss e.g., whether participants knew which intervention was the “intervention of interest” and which one was the “comparator”

Informed consent procedures (4a-ii) can create biases and certain expectations - discuss e.g., whether participants knew which intervention was the “intervention of interest” and which one was the “comparator”.

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 11a-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Participants were informally blinded towards their group allocation for the first study part, as it was not stated in the information sheet which e-learning methods were being compared"

11b) If relevant, description of the similarity of interventions

(this item is usually not relevant for ehealth trials as it refers to similarity of a placebo or sham intervention to a active medication/intervention)

Does your paper address CONSORT subitem 11b? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

This item is not relevant for this study.

12a) Statistical methods used to compare groups for primary and secondary outcomes

NPT: When applicable, details of whether and how the clustering by care providers or centers was addressed

Does your paper address CONSORT subitem 12a? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Only participants that completed the online questionnaires, and therefore were considered to have also completed their respective e-learning module, were analyzed for primary and secondary outcomes, resulting in a modified intention-to-treat analysis."

12a-i) Imputation techniques to deal with attrition / missing values

Imputation techniques to deal with attrition / missing values: Not all participants will use the intervention/comparator as intended and attrition is typically high in ehealth trials. Specify how participants who did not use the application or dropped out from the trial were treated in the statistical analysis (a complete case analysis is strongly discouraged, and simple imputation techniques such as LOCF may also be problematic [4]).

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 12a-i? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Only participants that completed the online questionnaires, and therefore were considered to have also completed their respective e-learning module, were analyzed for primary and secondary outcomes, resulting in a modified intention-to-treat analysis."

12b) Methods for additional analyses, such as subgroup analyses and adjusted analyses

Does your paper address CONSORT subitem 12b? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Two students of the intervention group later reported in the rating conference that they had switched groups, however a post-hoc sensitivity analysis which excluded these two students revealed no differences in the outcomes."

X26) REB/IRB Approval and Ethical Considerations [recommended as subheading under "Methods"] (not a CONSORT item)

X26-i) Comment on ethics committee approval

subitem not at all important 1 2 3 4 5 essential

☐ ☐ ☐ ☐ ☒

Auswahl löschen

Does your paper address subitem X26-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"The study protocol received approval by both the ethics committee of Heidelberg University and the local ethics committee of LMMU (Heidelberg: S-691/2020, LMMU: 00007/20)."

x26-ii) Outline informed consent procedures

Outline informed consent procedures e.g., if consent was obtained offline or online (how? Checkbox, etc.), and what information was provided (see 4a-ii). See [6] for some items to be included in informed consent documents.

subitem not at all important 1 2 3 4 5 essential

☐ ☐ ☐ ☐ ☒

Auswahl löschen

Does your paper address subitem X26-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"All eligible students were invited to participate via email on the 20th of April 2021 and recruitment continued until the 30th of April 2021 (see multimedia appendix 5 for study information sheet)." "Students willing to participate sent their informed consent via email."
"Participants were informally blinded towards their group allocation for the first study part, as it was not stated in the information sheet which e-learning methods were being compared."

X26-iii) Safety and security procedures

Safety and security procedures, incl. privacy considerations, and any steps taken to reduce the likelihood or detection of harm (e.g., education and training, availability of a hotline)

subitem not at all important 1 2 3 4 5 essential

☐ ☐ ☐ ☐ ☒

Auswahl löschen

Does your paper address subitem X26-iii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"It was possible to contact the main investigator via email and local study coordinator during the entire study." "Participants stated their study ID in the online questionnaires, to protect personal data."

RESULTS**13a) For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome**

NPT: The number of care providers or centers performing the intervention in each group and the number of patients treated by each care provider in each center

Does your paper address CONSORT subitem 13a? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"In total, n=202 ML students, predominantly in their second study year, were identified eligible for study participation. Out of these 47% (94/202) of students signed up for the study. Ultimately 44% (41/94) of students participated in the first study part and were analyzed." Please see Figure 1 for participant flow in more detail.

13b) For each group, losses and exclusions after randomisation, together with reasons

Does your paper address CONSORT subitem 13b? (NOTE: Preferably, this is shown in a CONSORT flow diagram) *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Please see Figure 1 for losses, exclusions after randomization and reasons.

13b-i) Attrition diagram

Strongly recommended: An attrition diagram (e.g., proportion of participants still logging in or using the intervention/comparator in each group plotted over time, similar to a survival curve) or other figures or tables demonstrating usage/dose/engagement.

	1	2	3	4	5	
subitem not at all important	☐	☐	☐	☒	☐	essential

Auswahl löschen

Does your paper address subitem 13b-i?

Copy and paste relevant sections from the manuscript or cite the figure number if applicable (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Figure 1 portrays the attrition of study participants and how many actually received their allocated intervention.

14a) Dates defining the periods of recruitment and follow-up

Does your paper address CONSORT subitem 14a? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Following randomization, the participants were invited on the 1st of May 2021 to take part in their respective e-learning module." "The e-learning platform was down for a few hours on the 4th and 7th of May 2021, but the study participants were given until the 31st of May 2021 to complete these tasks."

14a-i) Indicate if critical "secular events" fell into the study period

Indicate if critical "secular events" fell into the study period, e.g., significant changes in Internet resources available or "changes in computer hardware or Internet delivery resources"

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 14a-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"The e-learning platform was down for a few hours on the 4th and 7th of May 2021, but the study participants were given until the 31st of May 2021 to complete these tasks."

14b) Why the trial ended or was stopped (early)

Does your paper address CONSORT subitem 14b? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

The trial was not stopped early. It was ended at the intended ending time.

15) A table showing baseline demographic and clinical characteristics for each group

NPT: When applicable, a description of care providers (case volume, qualification, expertise, etc.) and centers (volume) in each group

Does your paper address CONSORT subitem 15? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Please see Table 1 for participant characteristics (Age, gender, study year)

15-i) Report demographics associated with digital divide issues

In ehealth trials it is particularly important to report demographics associated with digital divide issues, such as age, education, gender, social-economic status, computer/Internet/ehealth literacy of the participants, if known.

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 15-i? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Of the listed demographics, Table 1 includes information on age and gender.

16) For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups

16-i) Report multiple “denominators” and provide definitions

Report multiple “denominators” and provide definitions: Report N's (and effect sizes) “across a range of study participation [and use] thresholds” [1], e.g., N exposed, N consented, N used more than x times, N used more than y weeks, N participants “used” the intervention/comparator at specific pre-defined time points of interest (in absolute and relative numbers per group). Always clearly define “use” of the intervention.

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 16-i? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Please see Figure 1 and Tables 1+2 for N's, number of students analyzed and effect sizes. Use of intervention was defined as: "Only participants that completed the online questionnaires, and therefore were considered to have also completed their respective e-learning module, were analyzed for primary and secondary outcomes, resulting in a modified intention-to-treat analysis" and "If a student had filled out the online questionnaire it was assumed that they had also received their allocated intervention or control. Two students of the intervention group later reported in the rating conference that they had switched groups, however a post-hoc sensitivity analysis which excluded these two students revealed no differences in the outcomes."

16-ii) Primary analysis should be intent-to-treat

Primary analysis should be intent-to-treat, secondary analyses could include comparing only “users”, with the appropriate caveats that this is no longer a randomized sample (see 18-i).

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 16-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Only participants that completed the online questionnaires, and therefore were considered to have also completed their respective e-learning module, were analyzed for primary and secondary outcomes, resulting in a modified intention-to-treat analysis" and "If a student had filled out the online questionnaire it was assumed that they had also received their allocated intervention or control. Two students of the intervention group later reported in the rating conference that they had switched groups, however a post-hoc sensitivity analysis which excluded these two students revealed no differences in the outcomes." Limitations of this modified intention to treat analysis were mentioned in the discussion: "The analyzed study sample might be biased as solely users were evaluated and not the original sample (due to many dropouts)."

17a) For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)

Does your paper address CONSORT subitem 17a? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Please see Table 2 for results with effect sizes and its precision.

17a-i) Presentation of process outcomes such as metrics of use and intensity of use

In addition to primary/secondary (clinical) outcomes, the presentation of process outcomes such as metrics of use and intensity of use (dose, exposure) and their operational definitions is critical. This does not only refer to metrics of attrition (13-b) (often a binary variable), but also to more continuous exposure metrics such as "average session length". These must be accompanied by a technical description how a metric like a "session" is defined (e.g., timeout after idle time) [1] (report under item 6a).

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 17a-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Table 2 includes self-reported time spent learning in minutes.

17b) For binary outcomes, presentation of both absolute and relative effect sizes is recommended**Does your paper address CONSORT subitem 17b? ***

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

There were no binary outcomes.

18) Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory**Does your paper address CONSORT subitem 18? ***

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Two students of the intervention group later reported in the rating conference that they had switched groups, however a post-hoc sensitivity analysis which excluded these two students revealed no differences in the outcomes.". Figure 1 also portrays the participant number of this post-hoc sensitivity analysis.

18-i) Subgroup analysis of comparing only users

A subgroup analysis of comparing only users is not uncommon in ehealth trials, but if done, it must be stressed that this is a self-selected sample and no longer an unbiased sample from a randomized trial (see 16-iii).

	1	2	3	4	5	
subitem not at all important	☐	☐	☐	☒	☐	essential

Auswahl löschen

Does your paper address subitem 18-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

We solely analyzed "users" as only "users" filled out the online questionnaire and participants that did not use their allocated intervention did not fill out the online questionnaire, therefore no data on them was available: "Only participants that completed the online questionnaires, and therefore were considered to have also completed their respective e-learning module, were analyzed for primary and secondary outcomes, resulting in a modified intention-to-treat analysis" The limitation of this analysis was mentioned in the discussion: "The analyzed study sample might be biased as solely users were evaluated and not the original sample (due to many dropouts)."

19) All important harms or unintended effects in each group

(for specific guidance see CONSORT for harms)

Does your paper address CONSORT subitem 19? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

There we no harms or unintended effects.

19-i) Include privacy breaches, technical problems

Include privacy breaches, technical problems. This does not only include physical "harm" to participants, but also incidents such as perceived or real privacy breaches [1], technical problems, and other unexpected/unintended incidents. "Unintended effects" also includes unintended positive effects [2].

	1	2	3	4	5	
subitem not at all important	☐	☐	☐	☒	☐	essential

[Auswahl löschen](#)
Does your paper address subitem 19-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Some students encountered problems when trying to access their e-learning module: "In case of non-solvable technical difficulties with the e-learning platform or the internet, individual students were sent a link to their respective e-learning module which was uploaded onto the cloud or students of the control group received a PDF file." "These access challenges using the interactive module led to intervention participants using alternative methods to learn about COPD. Further research online (2/8) or gaining access to the e-learning module of the non-interactive group (2/8) were reported." For additional information on access challenges please see the paragraph "Barriers to e-learning" under "Qualitative results"

19-ii) Include qualitative feedback from participants or observations from staff/researchers

Include qualitative feedback from participants or observations from staff/researchers, if available, on strengths and shortcomings of the application, especially if they point to unintended/unexpected effects or uses. This includes (if available) reasons for why people did or did not use the application as intended by the developers.

	1	2	3	4	5	
subitem not at all important	☐	☐	☐	☐	☒	essential

[Auswahl löschen](#)

Does your paper address subitem 19-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Please see entire section on qualitative results.

DISCUSSION**22) Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence**

NPT: In addition, take into account the choice of the comparator, lack of or partial blinding, and unequal expertise of care providers or centers in each group

22-i) Restate study questions and summarize the answers suggested by the data, starting with primary outcomes and process outcomes (use)

Restate study questions and summarize the answers suggested by the data, starting with primary outcomes and process outcomes (use).

	1	2	3	4	5	
subitem not at all important	☐	☐	☐	☐	☒	essential

Auswahl löschen

Does your paper address subitem 22-i? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

The section on "Primary outcome user satisfaction and secondary outcome usability" includes the initial hypothesis and summarizes results for the primary outcome and one secondary outcome (usability)

The section on "Secondary outcome knowledge gain" includes initial hypothesis and summarizes results

The section on "Secondary outcome barriers to e-learning" includes process outcomes (use) and summarizes results

22-ii) Highlight unanswered new questions, suggest future research

Highlight unanswered new questions, suggest future research.

subitem not at all important 1 2 3 4 5 essential

☐ ☐ ☐ ☐ ☒

Auswahl löschen

Does your paper address subitem 22-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Please see section "Suggestions for further research".

20) Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses**20-i) Typical limitations in ehealth trials**

Typical limitations in ehealth trials: Participants in ehealth trials are rarely blinded. Ehealth trials often look at a multiplicity of outcomes, increasing risk for a Type I error. Discuss biases due to non-use of the intervention/usability issues, biases through informed consent procedures, unexpected events.

subitem not at all important 1 2 3 4 5 essential

☐ ☐ ☐ ☐ ☒

Auswahl löschen

Does your paper address subitem 20-i? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

Please see section "Strengths and limitations", which discusses the study's limitation in detail.

21) Generalisability (external validity, applicability) of the trial findings

NPT: External validity of the trial findings according to the intervention, comparators, patients, and care providers or centers involved in the trial

21-i) Generalizability to other populations

Generalizability to other populations: In particular, discuss generalizability to a general Internet population, outside of a RCT setting, and general patient population, including applicability of the study results for other organizations

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem 21-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"Future studies comparing interactive and non-interactive e-learning for health care personal in low-resource settings such as Zambia should ensure that potentially limiting factors in the technical access to the e-learning material are mitigated. This could be achieved by uploading study content for offline usage to a set number of tablets for example. However, this would likely decrease external validity." and "However, these results may not be generalizable for other low-resource settings as the post-hoc power was low, and the e-learning system at LMMU has not yet reached its full potential. Consequently, access barriers to e-learning, of technical and individual nature, may have affected the results, particularly as the interactive module was deemed harder to access and use. The extent to which some limitations were inherent to the nascent e-learning system, opposed to the result of impaired e-learning access, is difficult to assess."

21-ii) Discuss if there were elements in the RCT that would be different in a routine application setting

Discuss if there were elements in the RCT that would be different in a routine application setting (e.g., prompts/reminders, more human involvement, training sessions or other co-interventions) and what impact the omission of these elements could have on use, adoption, or outcomes if the intervention is applied outside of a RCT setting.

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☒ ☐ essential

Auswahl löschen

Does your paper address subitem 21-ii?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

As this was a real-life evaluation of both e-learning interventions, it is probable that there would not be any differences in a routine application.

OTHER INFORMATION

23) Registration number and name of trial registry

Does your paper address CONSORT subitem 23? *

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

The trial was not registered as it was not necessary to register it: "The trial was not registered according to the International Committee of Medical Journal Editors"

24) Where the full trial protocol can be accessed, if available

Does your paper address CONSORT subitem 24? *

Cite a Multimedia Appendix, other reference, or copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

There is no trial protocol.

25) Sources of funding and other support (such as supply of drugs), role of funders**Does your paper address CONSORT subitem 25? ***

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"This publication was supported by the Heidelberg Graduate School of Global Health, which is funded by the Else-Kröner-Fresenius-Stiftung. The study was conducted within the framework of the BliZ Project "Blended Learning in Zambia" with a two-fold focus of sustainability and long-term implementation, also funded by the Else-Kröner-Fresenius-Stiftung (Project No: 2019_HA25). The funder had no influence on the study design, implementation, and publication."

X27) Conflicts of Interest (not a CONSORT item)**X27-i) State the relation of the study team towards the system being evaluated**

In addition to the usual declaration of interests (financial or otherwise), also state the relation of the study team towards the system being evaluated, i.e., state if the authors/evaluators are distinct from or identical with the developers/sponsors of the intervention.

1 2 3 4 5

subitem not at all important ☐ ☐ ☐ ☐ ☒ essential

Auswahl löschen

Does your paper address subitem X27-i?

Copy and paste relevant sections from the manuscript (include quotes in quotation marks "like this" to indicate direct quotes from your manuscript), or elaborate on this item by providing additional information not in the ms, or briefly explain why the item is not applicable/relevant for your study

"(FN) and (SA) also took part in implementing the e-learning system at LMMU in 2016/2017. Additionally, the main investigator developed both e-learning modules."

About the CONSORT EHEALTH checklist

As a result of using this checklist, did you make changes in your manuscript? *

- ☐ yes, major changes
- ☒ yes, minor changes
- ☐ no

What were the most important changes you made as a result of using this checklist?

The intervention and comparator are described in more detail now.

How much time did you spend on going through the checklist INCLUDING making changes in your manuscript *

I have at least spent 6 hours.

As a result of using this checklist, do you think your manuscript has improved? *

- ☒ yes
- ☐ no
- ☐ Sonstiges:

Would you like to become involved in the CONSORT EHEALTH group?

This would involve for example becoming involved in participating in a workshop and writing an "Explanation and Elaboration" document

- ☐ yes
- ☒ no
- ☐ Sonstiges:

Auswahl löschen

Any other comments or questions on CONSORT EHEALTH

Meine Antwort

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