PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	A quasi-experimental study on the effectiveness of a House Officer preparatory course for medical graduates on self-perceived confidence and readiness: a study protocol
AUTHORS	Abdul Rashid, Aneesa; Shariff Ghazali, Sazlina; Mohamad, Iliana; Mawardi, Maliza; Roslan, Dalila; Musa, Husna

VERSION 1 – REVIEW

REVIEWER	Associate Professor Dr Affirul Chairil bin Ariffin Universiti Sains Islam Malaysia, Kuala Lumpur, Malaysia
REVIEW RETURNED	27-Jul-2018

GENERAL COMMENTS	This is a very interesting topic. The findings of this research will aid in organizing the appropriate program for House officer and perhaps extended beyond house officer training. However, this protocol may benefit from a native speaker review to prevent any confusion and misinterpretation of procedure.

REVIEWER	Porfessor Sam Leinster Norwich Medical School University of East Anglia UK
REVIEW RETURNED	22-Aug-2018

GENERAL COMMENTS	This is an interesting and important study. Your overall approach is sound but there are a number of areas where the protocol could be improved. 1 Your literature review omits a considerable body of work on the subject. Your UK references are old and there have been significant more recent studies. A starting point for examining these studies would be our 2017 paper "Medical graduates' preparedness to practice: a comparison of undergraduate medical school training. Susan Miles, Joanne Kellett, Sam J. Leinster. BMC Medical Education 2017 17:33 https://doi.org/10.1186/s12909-017-0859-6" which references a number of these studies. 2 It is not clear to a reader from outside Malaysia when in the student's progress this course takes place. Is it immediately prior to commencing HO post; is it during the course of final year; or could it take place after the HO post has started? If there is variability in the timing of the course with regard to commencing employment, this fact should be recorded and some account taken of it in the analysis.

	3 You state (page 10 line 9 - 11) that there are no published studies on the confidence of medical students before commencing HO job. This is factually inaccurate and the paper I have cited above includes a questionnaire on preparedness and confidence. It is based on previously published questionnaires (as detailed in the paper). You might still have chosen to use the IMU questionnaire as it is locally relevant and has been validated in a Malaysian population but you should have considered alternatives and justified your choice by comparisons between them. 4 You do not specify the post course questionnaire. Will this be the same as the pre-test with the exception of the socio-demographic data? 5 It is not clear what questions will be asked at the one month telephone followup. I assume you want to compare the immediate post-test confidence with the confidence after one month but I cannot see how this can be done quantitatively without the students completing another questionnaire. If the telephone interview is purely qualitative it will be difficult to interpret how much improvement, if any, has occurred. 6 You are proposing to use parametric statistics which assumes that the data will be normally distributed. In our study, the data were heavily skewed necessitating the use of non-parametric statistics. 7 As you acknowledge there are problems with selection bias as attendance at the course is voluntary. It is not clear whether participants attend because they have lower confidence than their peers or because they are the better students and therefore keen to take every opportunity for self improvement. Is there no possibility of being able to administer the questionnaire to a group of new HOs who have not attended the course?

REVIEWER	Jennifer Barr University of Tasmania, Australia
REVIEW RETURNED	16-Oct-2018

GENERAL COMMENTS	Introduction and outcomes: The primary outcome is stated as competency of the HO. The authors should acknowledge the issue of competency and confidence not being the same thing (Stewart et al, 2000, Medical Education - explored this nicely). It would be helpful to tease this out early in the paper so that the usefulness of the questionnaire explained later in the paper, to gather self-perceived confidence ratings, is able to be considered in light of how the results from this will link to competency. Methods: It is not clear enough after reading the exclusion criteria the exact time period in this study context for participants to undertake the HO prep course given they cannot still be in medical school and not yet employed as an HO. Perhaps clarify what this in-between period is in your context so that others could consider how they would replicate the study protocol in their setting. For example could participants be in their final months of medical school to be included? More detail could be given to justify the changes to the questionnaire for this study arising from the content validity done by the specialists and academics. Without understanding why some items were not included and why the rating scale was

	changed, it is not clear to readers a) if this method is justifiable for this study and b) how they might consider using the questionnaire in their setting. Ethics: Participants should be informed that their participation in this study will not affect their future employment as a HO. Participants should also give consent to their details being shared with other participants via social media for the follow up section of the study and consideration given to managing risks associated with this component of the study. References: Many of the references are not recent and given this topic is very relevant currently in terms of junior doctor preparedness and the links to welfare there is more current literature which could be included in the introduction. Standard of writing: The manuscript includes phrases throughout which would benefit from re-writing for clarity, for example; 'don't run far' - I am unclear what this means, Line 42 of introduction - missing a word and the phrasing around discussion of impact could be improved. Page 5, line 29 - suggest changing 'housemen' to 'house officers' and just a caution to check this throughout the paper where 'HO' is not used. The term 'tagging period' could be explained in more detail for a wider audience to understand this element of the prep course. There are other more minor corrections required throughout and so it would be beneficial to proof read your paper to pick these up.

VERSION 1 – AUTHOR RESPONSE

Reviewer comments:	Corrections/ revision's made	Details (page)
Reviewer comments		
Reviewer: 1		
This is a very interesting topic. The findings of this research will aid in organizing the appropriate program for House officer and perhaps extended beyond house officer training. However, this protocol may benefit from a native speaker review to prevent any confusion and misinterpretation of procedure	Thank you for your comment. We agree that some details require further description in the HO recruitment system in Malaysia so this protocol could be better interpreted by someone outside or not familiar with the Malaysian system as commented by the other reviewers.	
Reviewer: 2		

Your literature review omits a considerable body of work on the subject. Your UK references are old and there have been significant more recent studies. A starting point for examining these studies would be our 2017 paper "Medical graduates' preparedness to practice: a comparison of undergraduate medical school training. Susan Miles, Joanne Kellett, Sam J. Leinster. BMC Medical Education 2017 17:33 https://doi.org/10.1186/s12909-017-0859-6" which references a number of these studies.	Thank you for the links to literature which was indeed very helpful on the latest scenario linking undergraduate education to their HO training in the UK. We have added this information in the background section as below; Many studies have linked the causes of HO stress with performance issues. This can be related to dealing with patient demands, intensity of the workload, mental strain and feeling overworked (1–3,6). Other authors have described stressor amongst HOs as "coping with diagnostic uncertainty," "perceived lack of skills," "fear of making mistakes," and "feeling insecure" (1,3,5–7). A more recent published study in the UK also reiterated that HOs felt less confident in their knowledge and skills to perform during their initial phase of training (8). This touches on the issue of HOs' perceived confidence during training, as some felt unprepared for the work ahead, which includes clinical procedures, work demand, and clinical knowledge (9).	Page 4, paragraph 2
It is not clear to a reader from outside Malaysia when in the student's progress this course takes place. Is it immediately prior to commencing HO post; is it during the course of final year; or could it take place after the HO post has started? If there is variability in the timing of the course with regard to commencing employment, this fact should be recorded and some account taken of it in the analysis	The situation in Malaysia is unique in terms of work placement working time. Previously after graduation, work placement will only take a few months. However now it is much longer and may take up to 1 year. Hence this is the time where the medical graduates seek HO prep training: Currently, in Malaysia, the waiting time to commence work from the time students graduate can be a few months, but may take up to one year, with an average of six-month waiting time (12). The long waiting time can be attributed to the sudden increase in the number of medical graduates trained locally via private	Page 5, paragraph 3

	institutions, as well as overseas training (12). Hence, it is during this time that medical graduates turn to independent HO Preparatory Courses offered by independent bodies to address the aforementioned issues (16). During the filling in of the questionnaire, the year and university of graduation is taken into account. However with the information given by the participants, we can trace back the exact date of graduation, and will be taken into consideration for analysis. Additional information is given on the process of job application: HO hospital placements in Malaysia are done online and are opened for registration at specific times of the year via the e- Housemen website (ehousemen.gov.my). The future HOs need to register online, choose their preferred hospital placements, and the system will try to match their requests where possible. The participants of the Medicorp's course will receive additional guidance of this process via Facebook and Whatsapp, specifically on reminders of the time to register and the choice of training placements	Page 9, Line 45
You state (page 10 line 9 - 11) that there are no published studies on the confidence of medical students before commencing HO job. This is factually inaccurate and the paper I have cited above includes a questionnaire on preparedness and confidence. It is based on previously	Thank you for the information on this matter. We apologise for the inaccuracy of our statement- and we appreciate the amount of research the authors have put into exploring this critical subject. We have rephrased this paragraph also taking into consideration the reviewer 3's comments:	

<table>
<tr>
<td>published questionnaires (as detailed in the paper).

You might still have chosen to use the IMU questionnaire as it is locally relevant and has been validated in a Malaysian population but you should have considered alternatives and justified your choice by comparisons between them.</td>
<td>The primary outcome is competency, which involves previous clinical experience and confidence. The secondary outcome is readiness. There are several validated questionnaires assessing medical graduates' confidence, readiness and preparedness for work. Understandably, these tools mainly aim to assess the undergraduate curriculum to determine if it prepares medical graduates for their working environment. This differs from our assessment of a short preparatory HO course after graduation (8,9,18–23). We thus chose a questionnaire that looks into the preparation for the role of a HO, specifically prior to commencement of work, and that has been validated for the use in the local setting. Therefore, we adapted the IMU student competency survey, as the tool was used by other authors to asses a preparatory program, specifically in preparation for HO-ship (21–23)</td>
<td>Page 11, paragraph 1</td>
</tr>
<tr>
<td>You do not specify the post course questionnaire. Will this be the same as the pre-test with the exception of the socio-demographic data?</td>
<td>We have added a table of outcome measures to clarify this matter and also a paragraph on the follow up questionnaire:

The outcome measures are presented in Table 2.

<table>
<tr><td>Outcomes</td><td>T0</td></tr>
<tr><td>Confidence</td><td>x</td></tr>
<tr><td>Readiness</td><td>x</td></tr>
<tr><td>Psychological wellbeing</td><td>x</td></tr>
<tr><td>Additional information</td><td>1. Sociodemographic questionnaire

2. Past clinical experience</td></tr>
</table>
</td>
<td>Page 13, last paragraph</td>
</tr>
</table>

	T0- before the course, T1-right after the course completion, T2-One month after starting work as an HO Table 2: Outcome measures The questions asked will probe into the participants' level of confidence, readiness, DASS, and workplace information (which hospital and posting), as well as an open-ended question "Any suggestions to improve the course based on your current working experience?" They will be given a copy of the questionnaire via email or the WhatsApp application to facilitate the interview process.	Page 14 paragraph 3
It is not clear what questions will be asked at the one month telephone follow-up. I assume you want to compare the immediate post-test confidence with the confidence after one month but I cannot see how this can be done quantitatively without the students completing another questionnaire. If the telephone interview is purely qualitative it will be difficult to interpret how much improvement, if any, has occurred.	Explained as above	Page 14, paragraph 3
You are proposing to use parametric statistics which assumes that the data will be normally distributed. In our study, the data were heavily skewed necessitating the use of non-parametric statistics.	A repeated measures ANOVA will be conducted. This study outcome is con continuous variables and it will have three assessment time points so the type 1 error will be not be inflated by using repeated measures ANOVA. Further, it is not reliant on normally distributed data in larger sample size. However, we do need to fulfil the assumption of sphericity only when we have the full data set.	

As you acknowledge there are problems with selection bias as attendance at the course is voluntary. It is not clear whether participants attend because they have lower confidence than their peers or because they are the better students and therefore keen to take every opportunity for self-improvement. Is there no possibility of being able to administer the questionnaire to a group of new HOs who have not attended the course?	This is a very important point. However, we are not able to get another group of HO due to time and financial constraints.	
Reviewer: 3		
Introduction and outcomes: The primary outcome is stated as competency of the HO. The authors should acknowledge the issue of competency and confidence not being the same thing (Stewart et al, 2000, Medical Education - explored this nicely). It would be helpful to tease this out early in the paper so that the usefulness of the questionnaire explained later in the paper, to gather self-perceived confidence ratings, is able to be considered in light of how the results from this will link to competency	Thank you for this very helpful article, we have included this in our introduction and edited on the outcomes section as well. (Introduction) Confidence and competence are sometimes used interchangeably when assessing a HO's ability to perform a task. However, researchers exploring this subject have found that the term 'competent' includes the HO's assessment of his or her ability to perform a certain task relying on their previous experiences. On the other hand, 'confidence' described whether a participant wanted to carry out an activity and did not necessarily relate to the individual's known level of competence (10). Nevertheless, reduced confidence and competence has been reported to affect students' psychological wellbeing, such as feeling anxious or distressed, especially during clinical training (6,11) (Measures) The primary outcome is competency, which involves previous clinical experience and confidence. The	Page 4, last paragraph

	secondary outcome is readiness. There are several validated questionnaires assessing medical graduates' confidence, readiness and preparedness for work. Understandably, these tools mainly aim to assess the undergraduate curriculum to determine if it prepares medical graduates for their working environment. This differs from our assessment of a short preparatory HO course after graduation (8,9,18–23). We thus chose a questionnaire that looks into the preparation for the role of a HO, specifically prior to commencement of work, and that has been validated for the use in the local setting. Therefore, we adapted the IMU student competency survey, as the tool was used by other authors to asses a preparatory program, specifically in preparation for HO-ship (Appendix 2) (21–23).	Page 11, paragraph 1
Methods: It is not clear enough after reading the exclusion criteria the exact time period in this study context for participants to undertake the HO prep course given they cannot still be in medical school and not yet employed as an HO. Perhaps clarify what this in-between period is in your context so that others could consider how they would replicate the study protocol in their setting. For example could participants be in their final months of medical school to be included?	We apologise for overlooking the explanation of waiting time for work in the Malaysian context. We explain in Introduction regarding this issue: Currently, in Malaysia, the waiting time to commence work from the time students graduate can be a few months, but may take up to one year, with an average of six-month waiting time (12). The long waiting time can be attributed to the sudden increase in the number of medical graduates trained locally via private institutions, as well as overseas training (12). Hence, it is during this time that medical graduates turn to independent HO Preparatory Courses offered by independent bodies to address the aforementioned issues (16).	Page 5, Paragraph 3

	Thank you for the pertinent points, we have clarified this matter as below: For the adaptation of the questionnaire for this current study, content validity was assessed by specialists in the Ministry of Health and academics in local public universities involved in HO training. Decisions made to omit and add on items were based on what the Medicorp HO Preparatory Course taught as a module, taking into consideration its limited time and resources. Some of the items assessed were more appropriate for assessment of the undergraduate curriculum.	
More detail could be given to justify the changes to the questionnaire for this study arising from the content validity done by the specialists and academics. Without understanding why some items were not included and why the rating scale was changed, it is not clear to readers a) if this method is justifiable for this study and b) how they might consider using the questionnaire in their setting	As per the original questionnaire, the estimated experience in practical skills remained the same (16 items). Three items from the self-perceived confidence in generic skills were removed. These questions were that required counselling patients/relatives on common diseases, answering question from patients/relatives on admission and on prioritising of cases to be seen, as the module did not address these skills. An item on making management plans for new admissions was added. Therefore, the self-perceived confidence in generic skills comprised of 5 items. Seven items to assess confidence on practical skills were omitted. The items omitted were the insertion of intra-venous (IV) lines and blood taking for paediatrics, administering of medications via IV, intramuscular and per-rectally and handling of blood containers because	Page 12-13

	these skills were not taught in Medicorp's HO preparatory module. The item "performing an electrocardiogram (ECG)" was also not included as Medicorp has a separate module on ECG. Five items on practical skills were added. These were to assess confidence on the insertion of the urinary catheter for both males (1 item) and females (1 item), doing a basic suture and surgical tie (1 item), doing a comprehensive review of patients during ward rounds (1 item) and referring cases to another department (1item). Personal skills was assessed as confidence and the 7 items were reduced to 5 items; these items were on finding ward routines/protocols themselves and managing time on and off work. These topics were not taught in the course. The dichotomous choice from the original questionnaire was changed to a 5-point Likert scale for uniformity in the assessment of confidence levels throughout the present study's questionnaire. In addition, an item to assess overall confidence to start work the next day (1 item) was added. This item was to evaluate the participants' sense of confidence as a whole. We maintained the 2 items of readiness as in the original questionnaire; one is the most daunting aspect, while the other is overall work readiness. All subscales were also scored on a 5-point Likert scale, except for the most daunting aspect, where the participant will only choose one answer. The adapted	

	questionnaire was pre-tested and the Cronbach alpha of all the subscales ranged from 0.92 to 0.96	
Ethics: Participants should be informed that their participation in this study will not affect their future employment as a HO. Participants should also give consent to their details being shared with other participants via social media for the follow up section of the study and consideration given to managing risks associated with this component of the study.	We have mentioned in the participant information sheet that their personal details will be kept confidential and that it will not be shared with be shared with any other parties, hence will not affect employment All data obtained will be kept confidential, will be used for research purposes only, and will not be shared. The data obtained will not affect participants' future work prospects, as all information will be kept confidential. No personal data will be shared on social media platforms. Personal questions will be asked confidentially via telephone. The follow up via social media are according to placement of HO-ship, however more personal matters, and details pertaining to studies are not discussed on a common platform, rather on a personal phone call.	Page 16, last paragraph
References: Many of the references are not recent and given this topic is very relevant currently in terms of junior doctor	We have updated our references in the background section as listed below ;	

preparedness and the links to welfare there is more current literature which could be included in the introduction.	Many studies have linked the causes of HO stress with performance issues. This can be related to dealing with patient demands, intensity of the workload, mental strain and feeling overworked (1–3,6). Other authors have described stressor amongst HOs as “coping with diagnostic uncertainty,” “perceived lack of skills,” “fear of making mistakes,” and “feeling insecure” (1,3,5–7). A more recent published study in the UK also reiterated that HOs felt less confident in their knowledge and skills to perform during their initial phase of training (8). This touches on the issue of HOs’ perceived confidence during training, as some felt unprepared for the work ahead, which includes clinical procedures, work demand, and clinical knowledge (9).	Page 4, paragraph 2
	The primary outcome is competency, which involves previous clinical experience and confidence. The secondary outcome is readiness. There are several validated questionnaires assessing medical graduates’ confidence, readiness and preparedness for work. Understandably, these tools mainly aim to assess the undergraduate curriculum to determine if it prepares medical graduates for their working environment. This differs from our assessment of a short preparatory HO course after graduation (8,9,18–23). We thus chose a questionnaire that looks into the preparation for the role of a HO, specifically prior to commencement of work, and that has been validated for the use in the local setting. Therefore, we adapted the IMU student	Page 11, paragraph 1

	competency survey, as the tool was used by other authors to asses a preparatory program, specifically in preparation for HO-ship (Appendix 2) (21–23).	
Standard of writing: The manuscript includes phrases throughout which would benefit from re-writing for clarity, for example; 'don't run far' - I am unclear what this means, Line 42 of introduction - missing a word and the phrasing around discussion of impact could be improved.	Thank you for the comments, we have made attempts to improve on the standard of writing as below; Rephrased: Similar percentages are yielded by local Malaysian studies, where 31−58% of the HOs are reported to suffer from various psychological conditions. For example, 31% of HOs are reported to be distressed, 36.6% indicated a high level of emotional burnout, and the level of stress in Kuala Lumpur and Kota Kinabalu is reported at 34% and 58%, respectively (3–5). Corrected and rephrased: There are many consequences of this psychological impact on the HOs, the healthcare system and nation as a whole. The results of stressed HOs in Malaysia are reflected in the decreasing numbers that complete training within the allocated timeframe of two years. In 2009, 86.4% of all HOs completed training in two years, whereas only 58.8% of them did the same in 2012 (12). The term has been corrected as suggested and checked for the same throughout the paper. the tagging period (where the HOs in a new posting are required to follow a more senior HO for a timeframe determined by each speciality. This is part of the effort to help HOs adjust to their work scope)	Page 4, paragraph 1 Page 5, paragraph 1

Page 5, line 29 - suggest changing 'housemen' to 'house officers' and just a caution to check this throughout the paper where 'HO' is not used. The term 'tagging period' could be explained in more detail for a wider audience to understand this element of the prep course. There are other more minor corrections required throughout and so it would be beneficial to proof read your paper to pick these up	The paper has been sent for professional editing & proof reading	page 9, line 20
Formatting		
Kindly reupload each figure under 'Image' file designation with at least 300 dpi resolution and at least 90mm x 90mm of width.	Done as per requirement	
Please include Figure legends at the end of your main manuscript	Figure 1 is at the end of the manuscript	

VERSION 2 – REVIEW

REVIEWER	Professor Sam Leinster Norwich Medical School University of East Anglia UK
REVIEW RETURNED	05-Dec-2018

GENERAL COMMENTS	This is a useful study. The modifications to the previous version make it much clearer

REVIEWER	Jenny Barr University of Tasmania, Australia
REVIEW RETURNED	06-Jan-2019

GENERAL COMMENTS	The authors have addressed many of the initial revision suggestions which has improved the clarity, particularly regarding the timing of the course and this study pre HO role commencing. There are two main issues to address in this version and corrections still required: 1. The abstract (line 28, page 2) and line 17 page 7, states 3 time points of study assessment with the first one at pre-training. However later on page 7, it is stated that participants who attend the training course from April 2018 - March 2019 will be recruited for the study. These two statements do not align, given that this paper is still under review in early 2019. Your recruitment cohort needs to be modified if this is in fact a protocol yet to be commenced. 2. The indication in these revisions is that the authors are not clear on what assessment of competency is vs confidence or readiness. Competency is not a self-assessed performance (page 4, line 52). Confidence is related to preparedness and certainly may impact on competence. The new para, page 4 where an attempt has been made to clarify the two concepts only provides greater confusion as there are inaccuracies here. I advise on page 4 and on page 11 (competency is stated as the primary outcome - which it cannot be) that the authors remove all reference to competency in this paper as the study is only assessing self perceived readiness or confidence....not competency. Your abstract refers to the course "...addressing their confidence, readiness and the psychological wellbeing in preparation for their HO training." You already reference the idea that confidence does not indicate competency (new para page 4, reference 10).....therefore you cannot propose that the primary outcome from this study (line 20 & 21, page 11) will be competency.

VERSION 2 – AUTHOR RESPONSE

Reviewer: 2 This is a useful study. The modifications to the previous version make it much clearer

Author's Response: Thank you for your comments on improving this protocol study which has helped substantially in making this article more understandable and clearer to a wider audience

Reviewer: 3 The authors have addressed many of the initial revision suggestions which has improved the clarity, particularly regarding the timing of the course and this study pre HO role commencing.

Author's Response: Thank you for your input and comments to improve the clarity of this manuscript.

There are two main issues to address in this version and corrections still required:

1. The abstract (line 28, page 2) and line 17 page 7, states 3 time points of study assessment with the first one at pre-training. However later on page 7, it is stated that participants who attend the training course from April 2018 - March 2019 will be recruited for the study. These two statements do not align, given that this paper is still under review in early 2019. Your recruitment cohort needs to be modified if this is in fact a protocol yet to be commenced..

Author's Response: write up of this protocol commenced early 2018

We then proceeded for ethical clearance (of which was approved) and later registered with approval of the protocol via clinicaltrial.gov on 27th April 2018 Link: https://clinicaltrials.gov/ct2/show/NCT03510195

After trial registration, first draft of the manuscript was sent to BMJ Open in May 2018

Currently, the study is still undergoing and has not yet completed

We have edited the abstract and methodology section to reflect this information.(Abstract in methods & analysis, page 2,

Methods and analysis, page 7, paragraph 1 and 2)

2. The indication in these revisions is that the authors are not clear on what assessment of competency is vs confidence or readiness. Competency is not a self-assessed performance (page 4, line 52).

Confidence is related to preparedness and certainly may impact on competence.

The new para, page 4 where an attempt has been made to clarify the two concepts only provides greater confusion as there are inaccuracies here.

I advise on page 4 and on page 11 (competency is stated as the primary outcome - which it cannot be) that the authors remove all reference to competency in this paper as the study is only assessing self perceived readiness or confidence....not competency. Your abstract refers to the course "...addressing their confidence, readiness and the psychological wellbeing in preparation for their HO training."

You already reference the idea that confidence does not indicate competency (new para page 4, reference 10)

.....therefore you cannot propose that the primary outcome from this study (line 20 & 21, page 11) will be competency

Author's Response 1: we have removed the confusing statement on competence on page 4, and have only elaborated on ‘confidence (Page 4, 2nd paragraph, last sentence)

Author's Response 2: (page 11, last paragraph) is actually the description of the original (IMU Student Competency Survey) questionnaires that we adapted from was to asses competency, where the questions asked are on confidence. We have received permission to adapt the questionnaires from the author. (see the original questionnaire attached).

However, in our study, we have adapted the questionnaire and decided to only asses self-perceived confidence and readiness as it is our main objective.

To clarify this matter we have edited the last paragraph of page 11, last paragraph:

The IMU Student Competency Survey is used to assess perceived competence, estimated experience in a range of skills and work readiness. It comprises…….

And the first paragraph, page 13, last sentence:

Hence, the adapted questionnaire for this current study only assessed self-perceived confidence and readiness, but not competency as mentioned in the original questionnaire.