Response to Reviewer #3)

Dear reviewer:

With regard to the reviewer comments and suggestions, we will give targeted answers to each question, and all of revisions will be reflected in the manuscript (highlighted in yellow). Thank you for your careful and patient comments, and instructive recommendations.

This is an interesting study about teachers' soft skills. It is clearly written and has its merits. However, the study needs some important improvements before it can be considered for publication. Here are a couple of suggestions:

Comment #1)

p.3: last paragraph of section 1 belongs to methods. Also, you talk here about inferential statistic analysis, which I would have expected to find in the result section, BUT I did not. See my other comments below, that is an important point to address before publication.

Response to the reviewer:

Authors agree with reviewer comment and, hence, the inferential analysis, which uses the Wilcoxon and Kruskal-Wallis tests for the comparison of means and the Levene test for the comparison of standard deviations, has been included in the Results section.

Comment #2)

142. 3: note that Cronbach alphas provide evidence of the internal consistency of subscales, as you explained, but there are not sufficient proofs to validate the instrument as indicated at line 142. Please rephrase this. What you have done is sufficient in this case because you goal is not to validate an instrument, but you should use proper words by only talking about internal consistency and reliability (like you did in lines 143-144, perfect!).

Response to the reviewer:

Authors agree with reviewer comments and, therefore, the paragraph was rewritten as follows:

Page 4:

The questionnaire was answered freely, voluntarily and anonymously by the participants. Table 1 shows the Cronbach's alpha parameters for each of the scales of the questionnaire, which were used to assess the internal consistency of the instrument. All the parameters are between 0.8 and 0.9, which allows us to assume that the questionnaire is reliable and has good internal cohesion in each of the scales into which it has been divided.

Comment #3)

143. 5: Circular diagrams are not appropriate for any kind of data, unfortunately. While there are appropriate for nominal data like (a), (c) and (e), figures (b) and (d) should be presented as histograms (continuous data variables with classes). (Also, please do not forget that proper histograms should not have spacing between consecutive classes.)

Response to the reviewer:

Authors agree with reviewer comments. The mentioned diagrams have been modified according to the suggestion. In addition, an introductive sentence has been introduced just before the Figure 2.

Page 5:

Sector diagrams are used for nominal variables and histograms for continuous variables grouped by ranges.

Comment #4)

144. 6: line 190-191, please clarify which chi-square independent tests were significant and which were not within the main text of your study.

Response to the reviewer:

We are grateful for this reviewer's suggestion. Thus, for the sake of clarity, a new sentence was included in the new version of the manuscript:

Pages 6-7:

In Figure 2a, it can be observed that […] fit with one degree of freedom (Chi-square = 1.3196, p-value = 0.2507) allow us to assume, with a significance level of 0.05, that the participants are distributed homogeneously between teachers from private and public universities. For the rest of the independent variables, the Chi-square goodness-of-fit test statistics yield p-values below 0.05, which does not allow the corresponding distributions of participants to be homogeneous within the sample.

Comment #5)

145. 6: line 194 to 197, these are results of your study that would merit attention in the discussion section. In particular, why do you think the additional skills showed the largest standard deviation? Also, do you think the high average answers could be partly explained by a bias of social desirability, or would that be at least a limitation of your study?

Response to the reviewer:

According to reviewer's comment, these aspects were explained in the Discussion section of the new version of the manuscript:

Page 17:

As already explained in the Results section, the mean is a descriptive statistic suitable for discussing the overall answers given by the participants on the different scales of the questionnaire. Therefore, in light of the data in Table 3 and Figure 3, it is possible to assume that participants' self-concepts about their soft skills are high or very high. In this sense, there are discrepancies with respect to studies that analyze the perception that students have about the skills of their teachers [2,26,27]. This fact highlights that university teachers have a higher confidence in their own soft and digital competencies than they are able to project in the classroom. This suggests that the high mean values detected may be due, at least in part, to social desirability.

Comment #6)

146. 7 – p. 11: VERY IMPORTANT. I would have expected to see inferential statistics here, comparing means between male/female, private/public, etc., but what I found were only descriptive statistics. I must say this was a little disappointing because it is difficult to draw any valid conclusions with only descriptive statistics. At most, descriptive statistics can SUGGEST some results…. For comparing results between male/female or private/public, you can perform a simple mean comparison and derive conclusions from p-values. For areas of knowledge, age and teaching experience, you would have to perform ANOVA and then t-test whenever necessary.

Response to the reviewer:

Thank you for your comments and suggestions which are valuable and very helpful for revising and improving our paper. The use of parametric tests, such as t-tests or ANOVA, was not considered appropriate because it is not possible to assume that the answers follow normal distributions. For this reason, nonparametric tests (specifically, Wilcoxon and Kruskal-Wallis) were used. Anyway, taking into account the reviewer comment, this aspect has been clarified in the article, and the corresponding paragraph has been rewritten as follows:

Page 5:

For the inferential study, the Mann-Whitney test (for dichotomous variables) or the Kruskal-Wallis test (for polytomous variables) for comparison of means and the Levene test for comparison of variances have been applied to compare results when the sample of participants is differentiated by each of the independent variables. The reason for choosing nonparametric tests in inferential analysis for the comparison of means, instead of parametric tests such as t-test or ANOVA, is that the p-values of the normality tests applied to the different items of the questionnaire do not allow us to assume that the data follow a normal distribution. This analysis is original and innovative, since […] other previous research is concerned with analyzing the need for the cultivation of soft skills in teachers in their training stage [24], rather than with an analysis of these characteristics in active teachers. Figure 1 shows an outline of the methodology followed in this statistical study, and Figure 2 shows the distribution of participants according to each of the independent variables.

Comment #7)

147. 11: Most of discussion section belongs to result section and seems to answer my earlier comment. These results should replace the (differentiated) descriptive statistics presented in the result subsection. THEN you will be able to properly discuss the obtained results in the discussion section, in reference with current and relevant literature.

Response to the reviewer:

Authors agree with reviewer comments. All the statistical tables have been presented in the Results section, so that the Discussion section has been completely rewritten to adapt it exclusively to a discussion of the results.

Comment #8)

148. 18: finally, I suggest your conclusion would have more value if presented in a continuous text (after having decided what you stay in the conclusion and what should be moved to the discussion section). Also, could you think about the study limitations, and perhaps avenues for future research?

Response to the reviewer:

Authors agree with reviewer comments and the Conclusions section has been reformulated following this suggestion. Specifically, some recommendations for universities have been introduced, suggested on the basis of the results obtained in the article. In addition, the final paragraph of the Discussion section discusses some limitations of the study and possible future lines of research.

This work also has some limitations. Among them, the fact that it does not carry out an analysis of the answers of the respondents by crossing the different independent variables. This would make it possible to deepen the analysis of the gaps studied and probably identify others. In addition, the article is limited to exploring the self-concepts of university teachers, without taking into account the students' perception of their teachers' skills or of themselves. This last limitation raises an interesting future line of research, which involves exploring the self-concept on soft skills of university students in different areas of knowledge, the perception they have of the skills of the faculty, and differentiating the results by the different sociological and academic variables taken into account in this paper. In this same sense, it would also be interesting to explore the opinion of employers, who, in some way, also evaluate the skills of university graduates.

5. Conclusions

This paper has found that university teachers from countries with medium or low technical and innovation development (measured through the GII) express high or very high self-concepts on all the soft skills scales. Specialized studies frequently show that students' perceptions of the soft skills (and also the digital competencies) of their teachers are intermediate or low. This discrepancy suggests the need for specific teacher training plans on the use of digital tools in didactic environments and on the development of the

different aspects of soft skills. In addition, an interesting line of research would be to study and expose students' suggestions on how teachers could improve their digital skills.

A certain gender gap has been identified, in the sense that females express a more optimistic self-concept. This gap is especially significant in the work behavior skills: conscientiousness, flexibility and action orientation. With respect to the area of knowledge, teachers in scientific-technical areas have a worse self-concept of their soft skills than those in humanistic-social areas. This fact shows that teachers in scientific-technical areas are more insecure about their soft skills. Their insecurity is probably caused by their broader technological knowledge, which makes them more realistic in their perceptions of their abilities.

Age has also been identified as a discriminating variable in the self-perception of soft skills. Younger teachers with less teaching experience are more insecure and consequently express the lowest average self-concept in terms of their soft skills. Exceptions to this observation are the skills related to work behavior (conscientiousness, flexibility and action orientation), in which younger teachers express the highest self-concept (moreover, this is the only scale in which the gap can be assumed to be statistically significant). Older participants also express lower self-concepts than those in middle age ranges. It can be concluded, therefore, that age exerts a certain influence on the assessment of one's own soft skills, in the sense that older teachers have a more pessimistic perception in this regard. The results in the case of long-lived and experienced participants may be due to the dependence caused by the accumulation of years of use of traditional teaching methodologies. However, the insecurity shown by younger and less experienced participants suggests the need for universities to propose training plans on digital competence oriented to novice teachers and the convenience for countries with a higher level of digital development to help (for example, through teacher mobility plans or online training) university teachers from countries with less digital development.

A higher self-concept of teachers from private universities has been found. This difference is especially significant in the skills of work motivation and psychic structure. This fact highlights the existence of differences between the two types of centers that result in greater optimism among private university teachers with respect to their soft skills. This is probably because private universities make a greater investment in digital learning resources and faculty training. Consequently, such actions should also be implemented by public universities.