For research article

Response to Reviewer 1 Comments

1. Summary

Thank you for taking time to review the R1 version of the paper titled "The Impact of E-Learning Technologies on Entrepreneurship and Sustainability Performance". This study investigates on the impact of E-Learning technologies (ELT) on entrepreneurial education performance (including personal skills, product skills and business skills), and the sustainability efficacy and their impact on sustainability awareness. Based on the data of 101 master students, the authors adopted PLS analysis and found that ELT have significant relationship with entrepreneurial performances and sustainability 17 efficacy. Meanwhile, sustainability efficacy also has significant relationship with sustainability awareness. However, no significant relationship between entrepreneurial skills and sustainability awareness was identified. In the following paragraphs I present some comments to improve the paper.

2. Questions for General Evaluation	**Reviewer's Evaluation**	**Response and Revisions**
Is the content succinctly described and contextualized with respect to previous and present theoretical background and empirical research (if applicable) on the topic?	Yes	
Are all the cited references relevant to the research?	Can be improved	I have adjusted the literature for those who are too old.
Are the research design, questions, hypotheses and methods clearly stated?	Must be improved	I have rewritten these sections.
Are the arguments and	Must be improved	I have rewritten this

discussion of findings coherent, balanced and compelling?		section, adding comparison and discussion.
For empirical research, are the results clearly presented?	Must be improved	
Is the article adequately referenced?	Yes	
Are the conclusions thoroughly supported by the results presented in the article or referenced in secondary literature?	Can be improved	I have improved the content of the discussion section, where I further discussed and explained the conclusions

3. Point-by-point response to Comments and Suggestions for Authors

Comments 1:

The background information reads in a very mechanical manner. Parts of the text look as though it could have been written by AI. This may be because most of the sections begin with standard definitions. Additionally, the background sections don't discuss similar research. Rather, the focus is on explanations of relevant, albeit basic concepts.

Response 1:

Thank you for pointing this out. I agree with this comment. Therefore, I have rewritten the introduction section as follows:

1.1. E-Learning and entrepreneurship education

Technology has the ability to change the ways in which knowledge is acquired in human society, and to restructure traditional teaching and learning models [1]. As in-formation and communication technologies (ICT) growing more sophisticated and convenient, they are increasingly penetrating the teaching environment of education, has made it one of the alternative teaching methods besides traditional face-to-face teaching. Influenced by COVID-19, in the field of education, the transition to online education mode is particularly fast [2]. The pandemic has stimulated the application of ELT, which has brought changes to the teaching process in universities and has expanded the channels of interaction between teachers and students. During this period, many universities shifted from offline teaching to online teaching [3]. Universities around the world have adopted online learning since then [4].

However, for many academic institutions, this transformation is forced. At that time, there was no choice but to change traditional educational methods and completely shift to online teaching [5]. Onsite teaching was once considered good, while other teaching methods aimed at coping with the pandemic, which was simply a temporary approach [6]. This approach to accessing

the education ecosystem that is urgently created in a crisis is called "Emergency Remote Learning" (ERT) [7]. In the post pandemic era, most higher education institutions in Hong Kong are eagerly resuming offline teaching, and ELTs are gradually becoming marginalized. Some teachers have even cancelled online classes. We support that ELT applied in higher education and academic institutions should be promoted instead of being abandoned. This paper aims to use entrepreneurship education as an example to illustrate the effectiveness of ELT, which may change the views of teachers and students on this teaching method [8]. (line 28 – line 49)

1.2. Sustainability and entrepreneurship education

Sustainable development has become an increasingly popular topic, one of the reasons being that it is a balance and harmony between the economic, social, and environmental aspects, which can provide benefits for stakeholders in multiple different fields.[11]. Starik pointed out that environmental and social initiatives were considered to add to the legal and moral burden on businesses in the early stages of their proposal [12]. However, nowadays, entrepreneurship has been recognized as one of the main channels for achieving sustainable development in all aspects. Creating new businesses is seen as a solution to social and environmental issues [13]. (line 55- line 62)

Peloza's research has demonstrated a positive relationship between corporate social responsibility and financial performance [15]. There are many similar studies that have made sustainability increasingly important in the entrepreneurial process [16]. On the contrary, few studies have confirmed how sustainability in entrepreneurship education affects the entrepreneurial philosophy of future entrepreneurs. The integration of sustainability related themes with entrepreneurship education is very low, although it was already proposed in the 1960s [17]. There has been a lack of support for sustainability related educational subjects in business courses [18]. This study will explore the level of sustainability awareness among students after entrepreneurship courses by setting questions related to sustainable development in the questionnaire. The objective is to explore appropriate teaching methods that combine sustainability and entrepreneurship in university courses, and to add sustainability education elements to entrepreneurship education. (line 65 – line 76)

Comments 2:

It appears the independent variables are being confused as 'control variables'. This means your study has multiple independent variables and the analysis should have been conducted with a MANOVA.

Response 2:

Thank you for your advice. To avoid confusion between the independent variables and control variables, I first conducted an equality test using ANOVA on the three control variables of gender, work experience, and academic performance The test results prove that these three variables have no impact on the other variables, so these three variables will not be discussed in subsequent model building.

For the three control variables, ANOVA was used to test gender, working experience, and

academic performance separately. This is because GPA is not a binary variable. ANOVA can be used to analyze the differences between two or more groups of data [125]. (line 400 – line 402)

4. Results

4.1. Equality test of demographic parameters

Using one-way ANOVA in SPSS to conduct equality testing on control variables (CV1, CV2, and CV3). The result is shown on Table 3.

There is no significant relationship between the control variables and all other variables, indicating that gender, work experience, or academic performance will not have an impact on students' entrepreneurial skills, sustainability efficiency, and sustainability awareness. Therefore, in subsequent data processing, we will no longer discuss control variables CV1, CV2, and CV3.

Table 3. Equality test of demographic parameters.

	CV1 Gender		**CV2 Working experience**		**CV3 GPA**	
	F	Sig.	F	Sig.	F	Sig.
ELT	0.023	0.881	0.008	0.928	0.844	0.723
PI	3.146	0.079	2.068	0.154	0.605	0.960
PD	1.306	0.256	1.306	0.256	0.990	0.515
BS	2.211	0.140	2.232	0.138	0.749	0.844
ESA	3.884	0.052	3.815	0.054	0.959	0.560
SDG	0.146	0.703	0.714	0.400	1.107	0.363

(line 403 – line 412)

Comments 3:

Cronbach's Alpha, which was used in this study, is a validation test that is used to verify whether the respondents are all answering in a similar fashion. If you are trying to compare groups, you cannot use this test. It is a validation test, not a hypothesis test. For this test to be used, you would need a minimum of 100 participants per group. However, if you were not separating the participants by group (such as gender or GPA), then you could use this test, but all the test is telling you is whether the participants are responding in the same way.

Response 3:

I have learned the application conditions of Cronbach's Alpha from your explanation. Thank you very much. For our experimental subjects are students of the entrepreneurship course within one year, the sample size is small. To address this issue, we removed the control variables from the model after verifying their equality and no longer grouped students based on gender, work experience, etc. After this, the minimum number of participants required to use Cronbach's Alpha can be met.