

***“Developing self-aware & self-directed students and staff”***

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## **Adopting distance learning in Fashion Design education: collaborative learning approach during Covid-19 pandemic**

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### **Abstract**

There is an ongoing debate regarding the best approach to educate undergraduates in arts and design (AD) subjects through online mode due to the Covid-19 pandemic. AD students are predominantly learning through experimental and reflective learning, hence facilitating teaching, learning and assessment (TLA) activities in an online platform and maintaining an active learning environment were the identified issues of the study. The outcomes of this study will be beneficial for academia, undergraduates and service providers of online education platforms.

This study targeted level two, term three undergraduates of the Bachelor of Design (Hons), Fashion Design and Product Development degree course as a group project, according to the learning outcomes defined in the curriculum. Outcomes were analyzed through mixed methodology while it was evaluated through the observations of the two examiners and post project feedback collected by students for qualitative data analysis. Quantitative analysis was done with the results obtained from summative and formative assessments of the sample of 51 students (in 12 groups).

It was evident that 100% of participants were able to adapt to the online learning while the majority (90%) could virtually interact with group members in order to engage in active learning with real-time connectivity. Students' feedback revealed that the virtual factory visits and online guest lectures were able to fill the knowledge gaps of the industry-linked project. Results of the summative assessments evidenced 8.3% of A+s while B+ has recorded as the lowest result gained by a group.

In conclusion, it was observed that the possibilities of adopting the online approach were overweighing the challenges and limitations encountered as the overall results of the students are higher than the previous academic year which was conducted physically. The experimental learning was limited due to lack of materials and technical resources however it was overcome through peer group learning. Furthermore, the study has revealed that the need of TLA is to be adhering in relation to constructive alignment considering the pros and cons of distance mode teaching.

### **Background**

With the Covid-19 pandemic announced by WHO, the world started moving to online base working platforms in many industries. This has impacted on every field including business, careers and personal lifestyles of people. In this context considering the higher education system there is an ongoing debate regarding the best approach to educate undergraduates in arts and design (AD) subjects due to the Covid-19 pandemic, as the said subjects are mainly based on hands-on work and experimental learning approaches. The change and the

transformation was based on the technology of communications while being the way forward with online teaching and learning as a replacement for the traditional teaching and learning practices (Dilma, 2020).

Mednick (1962) explained that designers are learning through experiments and reflections. Bachelor of Design (Hons), Fashion Design and Product Development (FD&PD) degree is encouraging students towards self-regulated learning mainly focusing on experimental learning and reflective practices while creating a student-centered learning approach. According to Moxey (1998), the most effective and suitable analysing on creative practices is experiment based and morphological analysis. This will help creative people to easily go through these higher order thinking skills based on physical experimentations as analysis, evaluate and plan appropriate methods in an active learning approach (Moxey, 1998; Goodsell, Maher, & Vincent, 1992).

In order to achieve above expectations in AD education students need to reflect on their own knowledge and experience gathered through experimentations while they will be able to get a deep learning approach through field visits in order to identify learning as a combination of experiments with techniques and procedures (Race, 1998; Bailey, 2002). On the other hand Cooper, Bottomley, and Gordon (2004) claimed as cited Lee (2008) by that industry based experiential learning assignments afford students opportunity for deeper levels of learning and application of classroom learning which is challenging in online teaching and learning platforms (Lee, 2008). However, facilitation for critically reflective learning is a lecturer's responsibility to scaffold student learning (Brockbank & McGill, 2000).

Furthermore, in the general group learning practice students evolve into cohesive learning teams and enable to achieve a common goal through peer learning. However, throughout the literature in comparing the face-to-face education and distance education, it can be identified that the positive or negative impact depends on the subject area (Dilma, 2020).

In this context it was evident that there is a gap in between the previous practice and the new online approach to be taken in teaching, Learning and Assessment (TLA) activities in AD subjects in higher education. Therefore, the main objective of this study was to propose and evaluate a distance mode TLA strategy for design and other AD subjects, while the study focused on sub objectives such as analysing students' approachability and adaptability to online learning platform, plan and evaluate the effectiveness of collaborative learning in order to overcome the knowledge gaps in learning, compare the outcomes of the term and evaluate students' perceptions on online learning during Covid-19 pandemic.

## **Methodology**

This study was done targeting level two, term three undergraduates (sample of 51 students in 12 groups) of the FD&PD degree course as a group project, according to the learning outcomes defined in the curricula. Student groups formed by random grouping technique while it was used "learn-zoom" as the main online teaching and learning platform. Moreover, it was used as an online document management system (moodle) to upload learning materials

including video recorded zoom sessions and for assignment submission purposes. Students were facilitated through “zoom breakout room” option for online group discussions during the official self-directed study times to interact with their peer groups. Moreover the “zoom” web application was used to do group discussions, share peer work (digital sketchbook) and do peer evaluations through screen sharing option. Meanwhile google sheets were used to track individual group’s working progress through online updated group meeting minutes.

Throughout the term students stayed at home and engaged in TLA activities through the above platforms. Further the lecturers have facilitated online group tutorials, lectures, learning materials as references, guest lectures from industry experts and virtual factory visits from commercial apparel industry to support students working progress of the project from concept development stage to the end of range development stage.

Outcomes of the study were analysed through mixed methodology while it was evaluated through the observations of the two examiners, external evaluators (industrial experts) and post project feedback collected by students for qualitative data analysis. Students’ feedback collected through an online questionnaire which had circulated at the end of the term and post lecture discussions. Quantitative analysis was done with the assessment results obtained from summative and formative assessments of the term. For the formative assessments students presented their working progress through verbal and PowerPoint presentations through zoom to lecturers and industrial experts who took part as external evaluators.

## Results

Throughout the study, it was evident that 48 students out of 51 had real-time connectivity to each zoom session as an average. According to the students given feedback and lecturers observations, students’ adaptability to the online working platform was 100% as all the students were able to create their virtual sketchbook and timely complete given formative and summative assessment tasks. The results revealed that the higher majority (82%) of students found that the online group working strategy was helpful for them in order to scaffold their level of learning as individuals while only seven (7) students have an opposite perception on that (Figure 1). Moreover, results of the study highlighted that the online guest lectures and the virtual factory visits helped students to enhance the level of outcome of their final design range, as 78% of them (representing all groups) strongly agreed to that (Figure 2).

Considering the group wise results of the summative assessments evident 8.3% of A+s while B+ has recorded as the lowest result gain by a group. Table 1, showcases a comparison of the summative assessment results of this study (online in 2020) and the results of physically progressed term in year 2019 which used the same project brief, assessment requirements and assessment rubric (appendix 01) followed by the same learning outcomes of the relevant term where the same examiners involved in TLA activities.

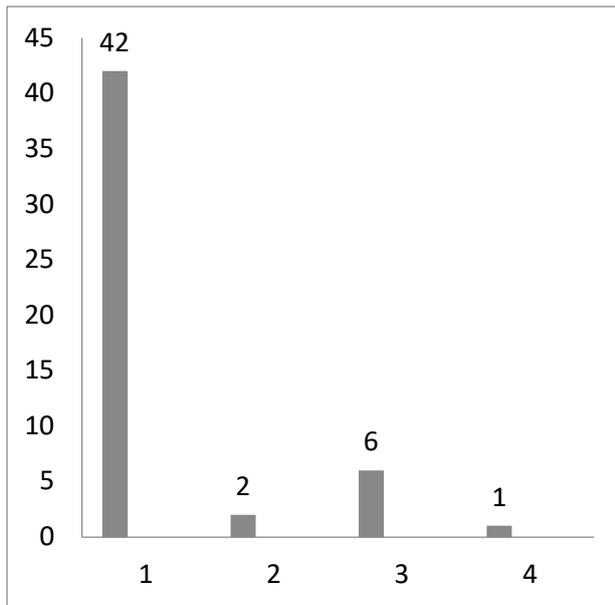


Figure 1. Students' feedback on team working approach for online learning

- 1- It really helpful for me
- 2- It was somewhat helpful
- 3- I prefer to work individually
- 4- It was not helpful at all

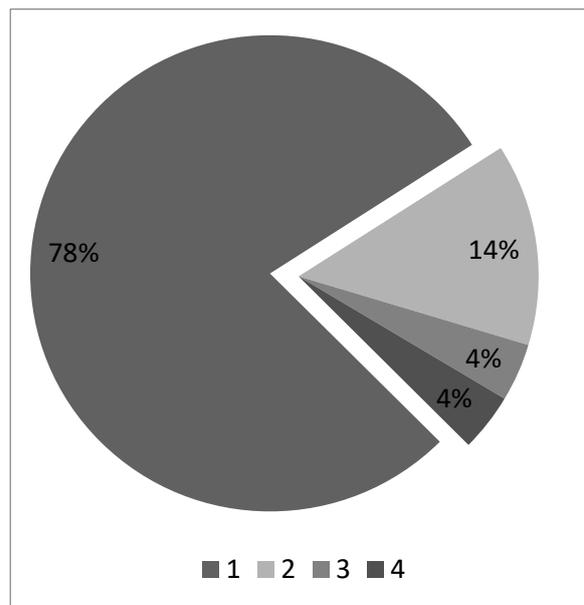


Figure 2. Students' feedback on the effectiveness of online guest lectures and virtual factory visit

- 1- Strongly agree
- 2- Somewhat agree
- 3- Not sure on this
- 4- Not agree

Table 1. Comparison of results between physical (2019) and online (2020) assessments

	A+ (85-100)	A (75-84)	A- (70-74)	B+ (65-69)
2019	2	6	2	2
2020 (Online)	1	8	2	1

## Discussion

Focusing on the results obtained in the study it was evident that students and the lecturers were able to quickly adapt to the online TL platforms as all students have mentioned that they were able to actively engage in academic work during the term. However, it was noticed that students were not performing well at the initial strategy development period as they were new to the platform by that time. As an important fact it was visible that the transition to distance education was rapid and this situation was difficult due to the lack of experience of using the distance education system, but then they were able to overcome this difficulty. When the literature is analyzed, it is revealed that students have negative attitudes and views towards distance education for similar reasons and some other reasons such as they get bored with distance mode learning (Dilma, 2020).

On the other hand, students have highlighted some positive factors such as learning in a comfortable and familiar environment and time effectiveness. The literature revealed the same fact that distance education does not have a time and place limit, that they can reach more examples and resources due to their technological infrastructure (Dilma, 2020). Based on the results of the study it was visible that group working strategy has helped students to

learn online as they were able to share resources, assess past lectures (recordings) and reflect on them while discussing in peer groups whenever they needed.

In addition to that there was a significant improvement in students' computer aided design (CAD) skills when they submitted their online portfolios/ sketch books for the final evaluation. Miller & Smith (2009) have explained that in any mode of learning students adopt the required skills for the relevant mode of learning. Proving the fact that these students were able to acquire CAD skills where the other students were able to develop their own illustration style in the previous (face to face) learning method. Moreover, considering the final assessment results and the comparison of results between year 2019 and 2020 it was evident that results following online TLA are equally good as those obtained from face-to-face mode. Furthermore, students were able to improve additional certain skills such as presentation skills, peer evaluations and cooperative learning which are essential for their future career development as a designer. The study further highlighted easy reachability to lecturers' and peers' feedback as some other advantage which has been highlighted in the literature as an improvement of interaction and collaborative learning approach through distance mode learning (Saromines-Ganne & Leong, 2014).

## **Conclusion**

In conclusion, possibilities of adopting the online approach were outweighing the challenges and limitations encountered as the overall results of the students were higher than the previous academic year which was conducted physically. However, as a major drawback, the experimental learning opportunities were limited due to lack of accessing the materials and technical resources. Though the online factory visits and guest lectures were able to overcome some of the learning gaps it was evident that hands-on work experience and physical engagement is still expected from the students' perception. Finally, the researcher can suggest studying on the constructive alignment of TLA according to the curricular as it can be seen that the mode of delivery effects on different expected learning outcomes in different TLA levels.

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**Appendix 1 – Assessment rubric which has used for the final/ summative assessment**

<b>Unit Title: Industry Linked Team Project in Fashion</b>											
<b>Learning Points:</b>		<b>Value:</b>		<b>Unit:</b>							
<b>Examiners:</b>											
<b>Group No:</b>											
<b>Learning Outcome Assessed</b>	<b>Fail 0-29</b>	<b>30-39</b>	<b>3<sup>rd</sup> 40-44</b>	<b>3<sup>rd</sup> 45-49</b>	<b>3<sup>rd</sup> 50-54</b>	<b>2.2 55-59</b>	<b>2.2 60-64</b>	<b>2.2 65-69</b>	<b>2.1 70-74</b>	<b>2.1 75-84</b>	<b>1<sup>st</sup> 85-100</b>
	F	D	C-	C	C+	B -	B	B +	A -	A	A+
Comments											
Ability to analyze and evaluate research findings from a breadth of sources and apply to the problem-solving process  Ability to make a formal presentation, (within a team) with supporting evidence of your proposed product presented in a professional manner											