SATISFACTION WITH COVID-19 INDUCED ONLINE WORK SUPPORT ARRANGEMENTS AT A UNIVERSITY IN THE EASTERN CAPE, SOUTH AFRICA

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ABSTRACT

In spite of the gradual shift to online based remote learning aided by Information and Communication Technology (ICT) advancements, the covid-19 pandemic exerted pressure and imposed an immediate need for online work arrangements. Given the covid-19 induced online work arrangements, the aim of the study was to assess satisfaction with online work arrangements at a selected university in the Eastern Cape. In order to achieve the stated objective, the quantitative research design was adopted. A survey was conducted and 115 academics at a University in the Eastern Cape participated in the study. Sixty six percent (66.4%) of the respondents affirmed that the university trained them on how to perform the virtual work responsibilities that they were assigned to do. All respondents (100%) indicated that they have received training in the form of workshops which were done through blackboard, Moodle, wise up and Microsoft teams. While evidence from the study showed that the university has implemented a number of initiatives to support and capacitate the academics, there was still an impression that more can still be done to enhance online work among the academics.

Keywords: Online work, virtualization, higher education, remote teaching, education.

INTRODUCTION

The human dimension of organizational success has always valued the concept of satisfaction in the attainment of relevant objectives. As such, satisfaction with the transition to online work after the covid-19 pandemic was considered important for organizational success in the post covid-19 era. Taking note of literature observations that job satisfaction is an important factor in productivity (Torkabadi & Kheirkhah, 2013), the quality of higher education is likely to depend on satisfaction with operational systems among academics. Locke's (1976) conception of job satisfaction as an emotional state was inspired by Vroom's (1964:7) view of job satisfaction as an affective orientation while recently Weiss (1978: 54) perceived it as an attitude toward an issue of importance. In this study satisfaction with online systems was seen to be based on the perceived benefits of online work. The COVID-19 pandemic affected all nations and the need for inquiries into the state of job satisfaction in critical organizations such as Higher Education Institutions (HEIs) is important. The study considers that the experiences of academics may differ and therefore assumes a phenomenological interpretation of job satisfaction and workplace virtualisation. With the change to virtualisation, especially as influenced by the COVID-19

pandemic, concern remains that graduates from HEIs remain incapacitated to meet the multitude of social and economic needs facing South Africa (Scott, 2018:3-4).

LITERATURE REVIEW

In the literature the presence and knowledge of tools and technological infrastructure for online work was deemed to be a key determinant of satisfaction with online work. Klement (2021:1) argues that quality education can be improved through the introduction of virtualisation technology employed in teaching. Thus virtualisation technology is becoming a priority for educational institutions, not only in terms of their internal information systems but also as a means of solving particular educational issues regarding advanced administration and operation of information systems. The employment of virtualisation technology in educational institutions is not only beneficial but also stimulating to both teachers and pupils. To complement availability of technologies, support and training of academics has also been described as critical in the literature. Moro, Stromberga and Stirling (2017:3) classify virtualization as being desk-top based and mobile-based and explain that both systems can be used in the academic environment, offering challenges and benefits which include cost and accessibility. Moro *et al*. (2017:2) found support for virtual learning and claim that it promotes enriched learning which offers certain linkages such as three-dimensional learning and access to a variety of content.

While virtualization was significantly aided with the advent of Web 2.0 at the beginning of the millennium (Lottering, 2020:109), the COVID-19 pandemic accelerated the need for virtual systems. A study by Lottering (2020:109) on the use of social media to enhance student engagement and quality found that social media has the capacity to improve student interest in content, improve academic performance and also widen critical thinking skills. Since virtual work arrangements involve the use of technologies for curriculum delivery, the inclusion of social media in the learning matrix could be beneficial in enhancing learner interest and boosting the satisfaction of academics.

Dlamini and Ndzinisa (2020:52) observed that virtualization has resulted in a greater need for the adoption of relevant information and communication infrastructure. There has been a greater need to invest in digital technologies that support virtualization and make it possible (Dlamini & Ndzinisa, 2020:52). Interactive technology describes the application of technological systems and structures in an organization. The virtualization technologies and infrastructure have been considered at micro, meso and macro levels. At the micro level, academic work involves interaction between academics and individual learners while at the meso level it involves mainly work teams and workgroups. At the macro level, communication involves communication with other universities and organizations at both national, regional and international levels. Technologies to support virtualization have been described as interactive technologies that allow for interactive communication between academics themselves as individuals or as groups and their students. Interactive technologies are technological structures, tools and platforms to facilitate effective communication among groups. The use of interactive communication in organizations has increased over the years with notable benefits as well as problems. Lew, Walther, Pang and Shin (2018:202) indicate that communication technologies have advanced with the increased use

of technology consistent with the 4IR. Communication technological change is also a phenomenon that describes the overall process of invention, innovation and diffusion of technology or processes as in the communication technology function.

Essentially, communication technological change is the invention of technology for effective communication. When considering the increased virtualization and use of relevant technologies, Mashau and Nyawo (2021:123) explain that the possession of skills and abilities becomes an important question that affects academics and their job satisfaction. This implies that virtualization has created a new work environment that is characterised by unclear technological use and academics are likely to suffer from a skills gap or mismatch that may lead to dissatisfaction with the new work environment. In short, virtualization has been associated with a pedagogical challenge that is related to skills and that has the potential to lead to dissatisfaction among academics.

Maphalala and Adigun (2021:8) acknowledge that virtualised teaching and learning are associated with notable challenges related to access to infrastructure and the ability to effectively use it for learning. It is acknowledged that South Africa suffers from significant inequalities, which means that the availability of infrastructure and the capacity to use it for teaching and learning is also inequitable. As a result, both academics and students require constant support on the use of and access to relevant infrastructure.

Focus of the study
Given the above, the aim of the study was to assess satisfaction with online work arrangements at a selected university in the Eastern Cape. The study principally takes an infrastructural dimension and considers that online work tools are at the centre of the satisfaction of academics.

METHODOLOGY
The study utilised a survey (questionnaire) to collect quantitative data because. At the commencement of quantitative data collection, the researcher recruited one data collector to assist with data collection and the researcher, together with the data collector, divided the participants into different faculties. The data collector targeted the Faculty of Engineering and the researcher targeted the Faculty of Education and the Faculty of Management Science to eliminate confusion and avoid duplication. The data collector and researcher delivered the first set of questionnaires to the academics via a link created in MS Forms. They both experienced many challenges with the link distribution method. Participants often forgot to fill in the questionnaire or complained that the questionnaire was too long, however, through this process 115 questionnaires were completed. The demographical distribution of the respondents were as follows:

Table 1: Demographical information of participants

Job title	Gender	Race	
lecturer	Female	Back	30
Lecturer	Male	Coloured	10
Senior lecturer	Male	Coloured	8
lecturer	Male	black	10
Lecturer	Male	Black	11
Lecturer	Male	Black	5
Lecturer	Female	Coloured	21
Lecturer	Female	Coloured	10

The sample of respondents was mixed as shown in Table 1 to allow for broader perspectives of the phenomenon under study. The findings of the study are presented in the next section

Findings
Satisfaction with technological infrastructure for online work

The results of the study demonstrate that online work tools have been provided to the majority (90.4%) while only a few (9.6%) believed they have not been provided with work tools as shown in Table 1. These results shows satisfaction with the provision of work tools to perform virtual work.

Table 1. Responses to the question - Did the university provide you with the working tools to perform virtual work?

	Frequency	Percentage
No	11	9.6
Yes	104	90.4
Total	115	100

The respondents also indicated the online work tools that have been provided to them and these are as shown in Table 2.

Table 2: Virtual tools provided by the university

Responses		
	N	Percentage
Computer and Laptops	73	89.0%
Software (accounting, mathematics)	4	4.9%
Teaching Tools (Blackboard, Moodle, Wise Up, Microsoft teams)	9	11.0%
Data	49	59.8%
Technological Devices (Wi-fi router, tablets, digital projector, writing pad, bluetooth, headphones)	38	46.3%

Virtual work tools such as computers and laptops, data, and or technological devices (wi-fi router, tablets, digital projector, writing pad, bluetooth, headphones) as shown in Table 2 were provided by the university. Of these tools, the computer and laptops were the most popular (89.9%) while data was also popular. The provision of virtual work tools indicates a positive factor in the satisfaction with virtualization

Satisfaction with training and support systems

As provided in Szromek & Wolniak (2020:12), the capacity to perform work can be enhanced through training. As such training is a critical component for ensuring online work satisfaction. Training for virtualisation can be considered a factor that influences satisfaction. Within the social cognition theory, training strengthens the mental and physical ability to perform thereby having positive feelings for good performance. Table 3 provides results on whether the university provided training on virtualisation and the use of tools.

Table 3. Responses to the question - Did the university provide training on how to use these tools?

	Frequency	Percentage
No	35	30.7
Yes	79	69.3
Total	114	100
Missing	1	
Total	115	

Table 3 show that there was strong agreement that the university provided training for virtualisation. The majority of respondents (69%) indicated that the University provided training for virtualisation. The forms of training provided were also assessed as shown in Table 4. Table 4 shows that training on the usage of teaching tools (Blackboard, Moodle, Wise Up, Microsoft Teams) was provided by the university.

Table 4: Forms of training provided to respondents

Responses	N	Percentage
Teaching tools training(Blackboard, Moodle, Wise Up, Microsoft Teams)	25	43.1%
Workshops (Virtual, DLT) and Monitoring	9	15.5%
Connectivity Training (ICT, Router)	24	41.4%
Aver Training	1	1.7%
Technological devices training (Writing pad, Wacom Tablet)	2	3.4%
Informal training (Colleagues training)	2	3.4%

Furthermore, it was necessary to enquire whether the respondents were trained on how to perform the virtual responsibilities that they were assigned to do. Table 5 depicts the results to this question.

Table 5: Did the university train you on how to perform the virtual work responsibilities you are assigned to do?

	Frequency	Percentage
No	38	33.6
Yes	75	66.4
Total	113	100
Missing	2	
Total	115	

Table 6 reflects the nature of training provided to those who had indicated that they had received some training. All respondents (100%) indicated that they had received training in the form of workshops which were done through Blackboard, Moodle, Wise Up and Microsoft Teams. In

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consideration of the literature review provided earlier, training tend to be favourable for enhancing job satisfaction.

Table 6: Nature of training provided to respondents

Responses		
	N	**Percent of Cases**
Workshops/Training (Blackboard, Moodle, Wise Up, Microsoft Teams)	56	100%
Library Training	4	7.1%
Plagiarism Software training	2	3.6%
I-enabler Training	1	1.8%

Provision of support

Just as training is important, the provision of support in the performance of jobs is deemed as important for job satisfaction. As a new concept, as explained in the literature, the respondents require support in virtualisation. Table 7 shows the responses on whether enough support was provided.

Table 7: Responses to the question - Is there enough support from university management for academics when performing virtual work responsibilities?

|	Frequency	Percentage
No	44	39.6
Yes	67	60.4
Total	111	100
Missing	4	
Total	115	

As found out earlier, job satisfaction is influenced by certain factors within the virtualized environment and it is important to explore them. Table 8 shows some of the factors for satisfaction in virtual work situations.

Table 8: Responses to the question - Based on your experiences working online, what factors affect or have affected your job satisfaction and work outcomes?

Responses		
	N	**Percentage**
Connectivity	99	86.1%
Cooperation of students	49	42.6%
Too much workload	27	23.5%
Lack of knowledge of online systems	21	18.3%
The support the university gives with regards to online teaching	16	13.9%
Lack of clear direction of what needs to be done	33	28.7%

Figure 1 shows the graphical presentation of the factors for job satisfaction in virtual settings that are provided in Table 6.18

Figure 1: Factors for job satisfaction in virtual settings
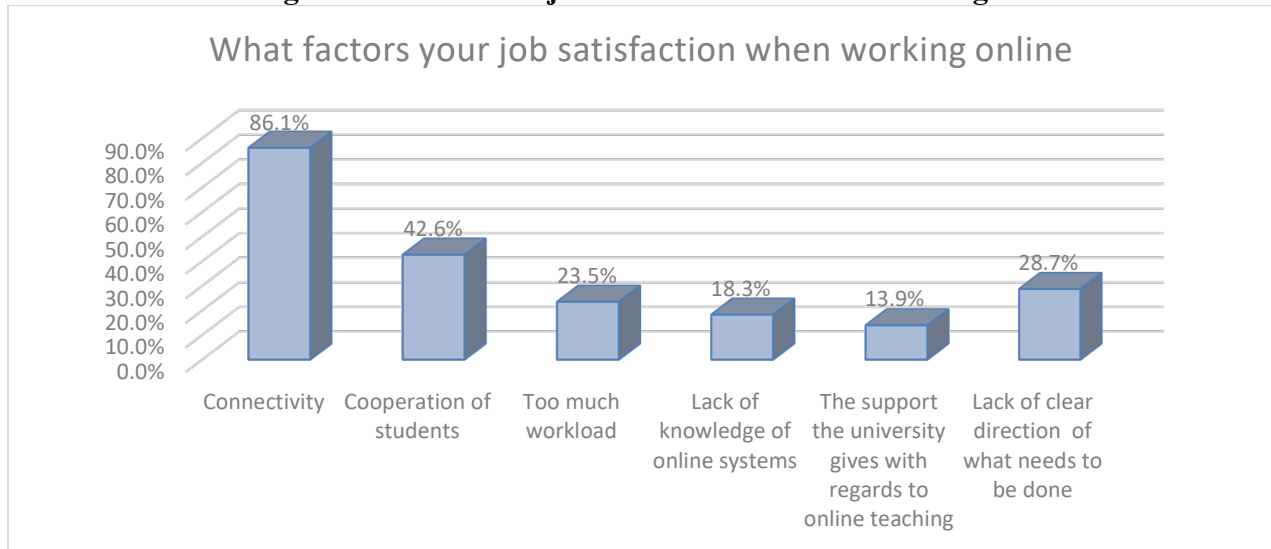
The results in Table 8 and Figure 1 show that the majority (86.1%) of respondents' job satisfaction and work outcomes are mostly affected by connectivity issues. The respondents also provided the factors that are negatively impacting virtualisation and these are as provided in Table 9

Table 9: Factors negatively affecting satisfaction in the virtual environment

Responses		
	N	Percent of Cases
Data/Connectivity Issues (Loadshedding, Network coverage)	75	72.8%
Heavy Workload	13	12.6%
Student-related Issues (Lack of cooperation, absenteeism, data/connectivity challenges)	48	46.6%
Lack of ICT Support	8	7.8%
Lack of Proper Resources	5	4.9%
Lack of training & practice	7	6.8%
Lack of direction in terms of virtualisation (lecturers, managers, policy, troubleshooting)	12	11.7%

The table above (Table 9) shows that most of the respondents (72.8%) reported that students face data/connectivity issues due to load-shedding and network coverage. Furthermore, less than half (46.6%) of the respondents reported student-related issues such as lack of cooperation, absenteeism, and data/connectivity challenges. The study also inquired whether the respondents had the skills, knowledge and abilities to perform and compete in virtual settings

Provision of knowledge, skills and abilities
Table 10 provides the responses on the possession of knowledge, skills and abilities to perform in virtual settings

Table 6.20: Possession of knowledge, skills, and abilities to perform and complete virtual job responsibilities

Responses		
	N	Percent of Cases
Knowledge (Basic)	4	4.2%
Knowledge (Average)	2	2.1%
Knowledge (Competent) interpretation	11	11.5%
Knowledgeable	12	12.5%
Expert knowledge	10	10.4%
Abilities/Skills (Teaching, assessing, uploading material, recording lectures,library usage, discussion forums, academic administration,research, Powerpoint presentation)	55	57.3%
Abilities/Skills (Blackboard, Moodle, Wise Up, Teams, icall)	6	6.3%

Table 20 shows that more than half of the respondents (57.3%)have abilities/skills such as teaching, assessing, uploading material, recording lectures, library usage, discussion forums, academic administration, research, and PowerPoint presentation to perform and complete virtual job responsibilities.

Table 11: Has virtualisation affected your job satisfaction

	Responses	Percent of Cases
	N	
Yes	62	73,8%
No	22	26,2%

CONCLUSION

The majority of respondents (73.8%) reported that the virtualisation of the university processes affected their job satisfaction and work outcomes. It was further provided that there are various reasons behind this such as the challenge to ensure blended learning and teaching which were novel to many academics. Other respondents noted that non-contact classes affected the teaching experience as there was no control over students during assessments and that assessments lacked authenticity. 90.4% of the respondents provided that the university provided them with the working tools to perform virtual work. Virtual work tools such as computers and laptops, data, and or technological devices (wi-fi router, tablets, digital projector, writing pad, bluetooth, headphones) were provided by the univeristy. of these tools, the computers and laptops were the most popular (89.9%) while data was also popular. 66.4% of the respondents affirmed that the university trained them on how to perform the virtual work responsibilities that they were assigned to do. All respondents (100%) indicated that they have received training in the form of workshops which were done through blackboard, moodle, wise up and microsoft teams. 60.4% of the respondents believed that there is enough support by the university management for academics when performing the virtual work responsibilities. The support was mostly given through workshop/training (LMSES). In conclusion, there was evidence of some satisfaction with the online arrangements but more can still be done for the advantages of online education to be fully realized.

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