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KEYWORDS

COVID-19, occupational therapy students, online healthcare education, online pedagogy, online learning, occupational therapy curricula

HOW TO CITE THIS ARTICLE

Hoosen T, Salajee FZ, Naidoo MM, Ntombela NNK, Aron T, Mchunu N, Rencken G, Govender P. *Online Assessment and Feedback Experiences of Occupational Therapy Students*. South African Journal of Occupational Therapy. Vol 54 No 2., August 2024. DOI:

<https://doi.org/10.17159/2310-3833/2024/vol54no2a9>

ARTICLE HISTORY

Submitted: 20 December 2022

Reviewed: 11 September 2023

Revised: 16 January 2024

Accepted: 18 January 2024

EDITOR

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DATA AVAILABILITY

All data derived from this study are presented in this manuscript and available upon reasonable request from the corresponding author.

FUNDING

No funding was received for the research.

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ISSN On-Line 2310-3833
ISSN Print 0038-2337

Online Assessment and Feedback Experiences of Occupational Therapy Students

ABSTRACT

Introduction: The COVID-19 pandemic brought about a global crisis in higher education, where students were required to transition to emergency remote teaching (ERT). This study explored students' experiences of online assessments and feedback during the pandemic to inform future practice.

Methodology: This study utilised a descriptive cross-sectional quantitative design with purposeful sampling to describe student's experiences of online assessments. Data were collected from occupational therapy students in 2022. The Assessment Experiences Questionnaire was sent to all eligible participants (n=166). Data were analysed using SPSS version 28.

Results: Students reported that 'tackling' assignments made them apply their learning more deeply (79.75%; n=63). More than half of the students learned more from doing assignments than studying course material (61.25%; n=49). Majority of students felt they did not receive timely feedback through online assessments (67.5%, n=54), which impacted their learning. More than half of the students use feedback in preparation for assignments (56.25%; n=45), hence timely and quality feedback is needed.

Conclusion: Occupational therapy students had a positive experience of online assessments; however, the transition was challenging. It is recommended for lecturers to consider the challenges of online assessments, the number of assessments and timely feedback for an effective online learning process.

Implications for Practice

- For online learning to be effective, relevant and timely access to resources and support systems are required. These include internet access, resources like laptops and smartphones which facilitate engagement with remote learning.
- The provision of institutional and academic support can positively influence students' experiences of online learning.
- Timing and quality of feedback is essential to the online learning experience. Delayed feedback can negatively impact learning, emphasising the importance of timely feedback to aid student growth and improved learning outcomes.
- Students' experiences and perceptions of how they receive feedback change over time. Thus, personalised feedback focusing on improvement rather than comparison to peers should be emphasised in the learning environments to which they are exposed.
- The importance of effective time management in students is emphasised for online learning and students need to be equipped with these skills for this mode of learning.

INTRODUCTION

The COVID-19 pandemic brought about a global crisis in higher education, including healthcare education¹. In March 2020, South Africa went into lockdown, and COVID-19 protocols were necessitated, forcing the higher education industry to make urgent decisions on disseminating learning materials and content in alternate and remote methods.

Transitions were thus required to preserve the academic year, one of which was emergency remote teaching as opposed to blended learning with in-person lectures and practical sessions involving applying theoretical concepts into practice. It also included learning how to use various online platforms for teaching and learning. For occupational therapy students enrolled in the programme at the University of KwaZulu Natal (UKZN), various practical components contribute to the student's final weighted mark². All these assessments were amended for online delivery. These assessments were quality assured using the UKZN-approved policies and procedures³. The transition to online learning and assessments meant fewer practical examinations and physical resources.

This transition was not without its challenges. Since transitioning to emergency remote teaching, UKZN students had to be familiar with Zoom technology². Students and lecturers must also be familiar with the online learning platform (Learn/Moodle site) used for online assessments. Many UKZN students initially had unequal access to technology during the lockdown, placing them at a disadvantage compared to their peers¹. UKZN students funded by the National Student Financial Aid Scheme (NSFAS), for the first time in 2020, had not received laptops by the time the academic programme had begun. After some time, NSFAS and UKZN were able to counteract this for students qualifying for assistance by providing them with a laptop and data packages that could be utilised for their online learning and assessments.

Several factors have been identified in studies that either promote or impede successful online assessments during the COVID-19 pandemic. Online assessments were found to be more prone to experience technical difficulties, resulting in class disruption and decreased participation⁴. Infrastructural impediments, such as power outages, disadvantage some students when undertaking online assessments⁵. Despite the UKZN assessment policy, indicating that students are accountable for adhering to the rules and regulations governing assessments and must conduct themselves ethically and responsibly when completing assessments, this proved more challenging to monitor online⁶. The likelihood of cheating increases with online assessments as no invigilators are physically present to monitor the integrity of the assessment process. Feedback from assessments forms an integral part of the assessment process⁷. One study reported a lack of feedback from lecturers regarding assessments for students⁴. According to Mandasari⁸, online assessments also affect the motivation to learn and perform well in an online exam due to studying in their own home environment and lack of invigilators, thereby allowing discussion amongst students during online exams.

There are advantages to online learning and assessments despite drawbacks. The benefits of UKZN online teaching and learning include having instant access to content on any device, making content easily accessible⁹. Moreover, online assessments provide flexibility because students can write remotely rather than travelling to a specified location. This saved time and money for both students and lecturers¹⁰.

Given that online assessments have been embedded into the occupational therapy curricula, it is essential to evaluate students' experiences of these online assessments as an understanding of student perspective can be useful in identifying barriers and enablers of using online tests in undergraduate education¹¹.

LITERATURE REVIEW

Online Learning and Teaching

Since the advent of higher education in South Africa, most South African universities and schools have depended on in-person teaching and learning. In-person teaching and learning provide real-time and practical contact with resources such as libraries within a specified time, resulting in quick and understandable feedback for students¹². UKZN utilised a student-centred remote

teaching and learning plan, which emphasised student learning, by informing activities of teaching teams to provide students with a reliable response to their learning needs⁷. One of the principles utilised by UKZN regarding the project plan during COVID-19, recommended a single joint session, where both the teaching team and students can engage⁷. Questions and answers were discussed in this session and recommendations were provided for preparation for assessments⁷.

As students faced COVID-19, there was a swift adjustment to emergency remote teaching, which left them feeling despondent and anxious, as this new way of life differed from what students and lecturers were accustomed to¹³. Academic faculty were compelled to rethink their curriculum as transitioning to an online platform encouraged problem-solving, critical thinking, and applied understanding through a holistic and integrated approach⁹.

Some of the advantages of online learning and teaching included online discussions, which allowed students to participate in the discussion without the fear of excessive attention or confrontation and to engage in the lessons from the comfort of their environments¹⁴. This also allowed students to engage equally, support each other's points, and offer new channels of knowledge⁹. Moreover, the extensive use of online learning management platforms such as Zoom[®], Microsoft Teams, voice-over PowerPoints and tutorials allowed increased participation and the ability to revisit materials. Online student assessments included using technology to provide in-depth feedback on particular sections of students' work through automated immediate marking, thus facilitating learning of content in action and enhancing students' understanding of the assessment content and feedback⁹. In a study by Baczek et al¹⁵, (n=804), medical students found the main advantages of online learning to be continuous access to online materials (69%) learning at your own pace (64%) and comfortable surroundings (54%). One of the main disadvantages reported was technical problems with technological tools (54%)¹⁵. Despite its challenges, emergency remote teaching had various advantages for students as well as lecturers.

Online Assessments

Online assessments consisted of multiple-choice questions, short and long answer questions. This became the core method of student assessment and learning during the pandemic. Lecturers preferred students to have access to required resources to enhance their knowledge and understanding of the content while ensuring examination integrity¹⁶. The UKZN Policy on assessments states that assessment practices should be aligned to the highest quality assessment and management principles, should be appropriate to the qualification levels and module programme outcomes and a responsible translation of the policy into assessment practices to ensure any quality audit or evaluation can show evidence of sound assessment practice³. Assessment principles consist of validity, reliability, fairness and sufficiency. Online assessments adhered to validity and reliability by ensuring that another lecturer moderated all content tested. Fairness and sufficiency was achieved by ensuring all students had a set time limit to conduct the assessment and that the memorandums for assessments were consistent. Students were responsible for reading, understanding and complying with the rules and regulations related to assessments in the modules and the programme for which they are registered; for using assessments to engage in critical self-assessment of progress towards learning outcomes; and for behaving ethically and responsibly in the conduct of assessment tasks as stipulated in module outlines, College Handbooks and University Academic Rules¹⁷.

In a study conducted at a university in the southeast of the United States¹⁸, there was no discernible difference in the students taking online examinations in terms of effort or achievement. According to this study, online assessments give convenience benefits rather

than intellectual excellence¹⁸. The study concludes that the usage of online tests as opposed to in-person assessments have no extreme differences on students' marks.

Feedback during the learning process and following assessment is essential, and feedback should enhance learning⁹. Lizzion and Wilson¹⁹ examined and assessed the student's understanding of the value and efficacy of feedback on assessment in a case study. The study analysed the feedback that 57 students had received on various assignments and identified the traits of cooperative and uncooperative lecturer comments. The results of this study demonstrated that providing feedback had a large and significant impact on the student's degree of learning and that an increase in learning and improvement in assessment is mostly linked to how well students perceive effective feedback²⁰. Another study indicates that feedback should be provided in a timely and cumulative manner to ensure that it is efficient, helpful, and relevant²¹. Students who receive feedback promptly benefit from the feedback instead of feedback received later²¹. Online feedback during COVID-19 was hindered as feedback and memorandum provided were uniform for all students and not based on each student's problem area.

Measuring the Response of Students to Assessments

The Assessment Experiences Questionnaire (AEQ) was used in this study. The AEQ correlated with the research questions about the experiences and assessment preparation related to online assessments²¹. The AEQ examined the extent to which students experienced various learning conditions on the whole programme of study. It consisted of 28 items across nine sub-scales linked to learning conditions from assessment, with one overall satisfaction item. In 2019, Dawson and his team used the AEQ in the first year of higher education. They discovered that using feedback was associated with confidence in achieving effective study skills and marks, regardless of the quantity and quality of feedback²². This indicated a link between the feedback and its association with confidence in achieving practical study skills and marks. Jessop and Malekar²³ also employed the AEQ in their study of students across three disciplines who reported poor learning levels, which they attributed to the lack of feedback from examinations. These indicate that the AEQ may be beneficial in eliciting student perception and experiences regarding online assessments and feedback during the COVID-era of online teaching and learning²⁴.

METHODOLOGY

Aim

This study aimed to describe University of KwaZulu-Natal occupational therapy students' experiences of online assessments and feedback during the COVID-19 pandemic in South Africa.

Study Design

This study utilised a descriptive cross-sectional quantitative design²⁵.

Study Setting

The study was undertaken at the University of KwaZulu-Natal, located in South Africa and the only tertiary institution offering a Bachelor of Occupational Therapy programme in the province.

Study Population and Sampling

The participants were limited to occupational therapy students within the College of Health Sciences due to the accessibility of Occupational Therapy students able to participate in the study. The sample was selected using non-probability purposive sampling²⁶. All students enrolled from year one to year four (N= 166 students) in 2022 were included. This included 32 first-year students, 53 second-year students, 34 third year and 47 fourth-year students. The pilot study participants (n=11) included physiotherapy students who were completing their final year of study in 2022. Physiotherapy students were chosen for the pilot study as they were health science

students whose field of study was closely affiliated with occupational therapy. Within this selected cohort, first- to third-year Occupational Therapy students would have had their last written in-person assessment in secondary school. Thus, the sampling ensured that all students who engaged in the study would have had a minimum of two years (2020-2022) experience with online assessments. The biostatistician was consulted and calculated the current study's required sample size at 116. Participants were recruited via WhatsApp and Email.

Data Collection

The AEQ²⁷ used to collect data for the study was hosted on Google Forms as it is easily accessible and easy to utilise. The AEQ comprised six subsections answered on a Likert Scale, ranging from (1) indicating strong disagreement to (5) indicating strong agreement. Subsection one included six questions related to the amount and distribution of study effort. Subsection two included six questions related to assignments and learning at an undergraduate level. Subsection three included six questions on the quantity and timing of feedback. Subsection four included six questions on the quality of feedback provided on assessments. Subsection 5 included six questions on what is done with the feedback provided. Subsection six included six questions on examination and learning (during the COVID-19 pandemic).

Following ethical approval, the link to access the google documents form was distributed to all registered UKZN occupational therapy students for 2022 via WhatsApp and Email. The survey was opened for six weeks and reminders were sent across all year groups on WhatsApp twice per week and weekly to the administration distributor via email.

Data Analysis

The data from Google Forms were manually imported to an MS Excel spreadsheet in preparation for the analysis conducted on the Statistical Package for Social Sciences (SPSS) version 28. A p-value < 0.05 was considered statistically significant. The demographic data were converted into categorical data. The categorical variables were described as counts and percentage frequencies. To determine the association between categorical variables, Chi-Square Test and p-values were used.

Factor analysis was used, working alongside the statistician, to take all of the information collected in the study and synthesise it into data sets grouped into categories, which reduced variables by extracting their commonalities, making data more understandable and manageable²⁸. This allowed for identifying patterns demonstrating correlations between variables that overlapped²⁸.

Validity and Reliability

A study conducted by Batten and colleagues²⁴ delivered conflicting results about the statistical validity of the AEQ. Whilst the AEQ has been successful in measuring and allowing for interpretation of results across the different components within the AEQ in relation to students' perceptions of assessments, the lack of clarity and specificity in the AEQ were said to influence the validity of the AEQ negatively, with some items in the questionnaire being open to misinterpretation by being quite vague, making it difficult for respondents to answer accurately²⁴.

Ethical approval and considerations

Gatekeeper permission from the Registrar of the UKZN and ethical approval from the University of KwaZulu-Natal's Human and Social Sciences Research Ethics Committee (HSSREC/00004148/2022) was obtained prior to the commencement of the study. Ethical principles of anonymity were adhered to in this study by de-identifying biographical data.

RESULTS

A total of 80 students (19 first-years, 19 second-years, 20 third-years and 22 fourth-years) voluntarily participated in the study. The majority of the students indicated being at the proficient level of computer literacy (n=60; 75%) and having access to electronic devices at home (n=75; 93.8%) and internet access (n=66; 82.5%).

Time Management | Amount of Study Time and Effort Students invest towards learning

Most students across the years reported that they do not study the same amount each week, regardless of whether an assignment is

due or not (65.82%; n=52). The first years (n=12; 63.16%) reported that they only study topics that are going to be covered in the assignments. Across all years, the majority of the students reported that in weeks that assignments are due, they put in more hours (80% n=64). However, more than half of the students across all years felt that studying regularly is required to do well on the course (67.5%; n=54) and the majority also reported that it is not possible to do quite well without studying in the Occupational Therapy course (77.5%; n= 62). All p-values were $p > 0.05$ (in section on *amount and distribution of study effort*) across all years, except for studying regularly to do well on the course ($p = 0.015$), indicating a significant difference between the years (Table I, below).

Table I: The amount of study time and effort UKZN occupational therapy students invest towards learning

Amount and distribution of study effort		1 st year n (%)	2 nd year n (%)	3 rd year n (%)	4 th year n (%)	p-value	Overall n (%) 80 (100)
		n=19(23.75)	n=19(23.75)	n=19(23.75)	n=22(27.5)		n=79
Sufficient study time regardless of assignment due	Agree	4 (21.05)	4 (21.05)	1 (5.26)	0 (0)	p = 0.152	9 (11.39)
	Neutral	6 (31.58)	2 (10.53)	4 (21.05)	6 (27.27)		18 (22.78)
	Disagree	9 (47.37)	13 (68.42)	14 (73.68)	16 (72.73)		52 (65.82)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Selective about what to study and learn and still do well	Agree	7 (36.84)	7 (36.84)	4 (20.00)	7 (31.82)	p = 0.561	25 (31.25)
	Neutral	5 (26.32)	6 (31.58)	10 (50.00)	10 (45.45)		31 (38.75)
	Disagree	7 (36.84)	6 (31.58)	6 (30.00)	5 (22.73)		24 (30.00)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Only study work covered in assignments	Agree	12 (63.16)	8 (42.11)	7 (35.00)	9 (40.91)	p = 0.649	36 (45.00)
	Neutral	1 (5.26)	2 (10.53)	4 (20.00)	3 (13.64)		10 (12.5)
	Disagree	6 (31.58)	9 (47.37)	9 (45.00)	10 (45.45)		34 (42.50)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Study regularly to do well on the course	Agree	14 (73.68)	17 (89.47)	11 (55.00)	12 (54.55)	p = 0.015*	54 (67.50)
	Neutral	0 (0)	1 (5.26)	7 (35.00)	8 (36.36)		16 (20.00)
	Disagree	5 (26.32)	1 (5.26)	2 (10.00)	2 (9.09)		10 (12.5)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Possible to do quite well without studying much	Agree	6 (31.58)	1 (5.26)	3 (15.00)	1 (4.55)	p = 0.058	11 (13.75)
	Neutral	0 (0)	3 (15.79)	1 (5.00)	3 (13.64)		7 (8.75)
	Disagree	13 (68.42)	15 (78.95)	16 (80.00)	18 (81.82)		62 (77.5)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
In weeks assignments due – one puts in more hours	Agree	14 (73.68)	17 (89.47)	14 (70.00)	19 (86.36)	p = 0.800	64 (80.00)
	Neutral	3 (15.79)	1 (5.26)	4 (20.00)	1 (4.55)		9 (11.25)
	Disagree	2 (10.53)	1 (5.26)	2 (10.00)	2 (9.09)		7 (8.75)

* $p < 0.05$ indicates a significant difference

Students' Experiences of Online Assessments and Learning

There were no significant differences between years with $p > 0.05$ for all items (Table II below). Most students across the years found that tackling assignments made them think (78.75%; $n=63$), and they found the assignments, mainly of long answer questions, to be very

challenging (76.25%, $n=61$). More than half of the students across all years felt that they learn more from doing the assignments than studying the course material (61.25%; $n=49$) and agreed that you cannot get away with not understanding the work but still get high marks (57.5%; $n=46$) since assessment drives learning.

Table II: Students' experiences with online assessments and learning

Assessments and learning		1 st year n (%)	2 nd year n (%)	3 rd year n (%)	4 th year n (%)	p-value	Overall n (%) 80 (100)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=21(26.26)		n=79
Tackling assignments makes one think	Agree	16 (84.21)	15 (78.95)	15 (75.00)	17 (80.95)	p = 0.840	63 (79.75)
	Neutral	2 (10.53)	4 (21.05)	4 (20.00)	3 (14.29)		13 (16.46)
	Disagree	1 (5.26)	0 (0)	1 (5.00)	1 (4.76)		3 (3.80)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Learn more from doing assignments than studying the course material	Agree	12 (63.16)	9 (47.37)	16 (80.00)	12 (54.55)	p = 0.082	49 (61.25)
	Neutral	0 (0)	0 (0)	0 (0)	2 (9.09)		2 (2.50)
	Disagree	7 (36.84)	10 (52.63)	4 (20.00)	8 (36.36)		29 (36.25)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Completing assignments and get away with not understanding the work but still get high marks	Agree	6 (31.58)	3 (15.79)	4 (20.00)	2 (9.09)	p = 0.396	15 (18.75)
	Neutral	5 (26.32)	5 (26.32)	5 (25.00)	4 (18.18)		19 (23.75)
	Disagree	8 (42.11)	11 (57.89)	11 (55.00)	16 (72.73)		46 (57.5)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Assignments give clear instructions about what is expected to do	Agree	8 (42.11)	5 (26.32)	4 (20.00)	2 (9.09)	p = 0.259	19 (23.75)
	Neutral	4 (21.05)	7 (36.84)	13 (65.00)	13 (59.09)		37 (46.25)
	Disagree	7 (36.84)	7 (36.84)	3 (15.00)	7 (31.82)		24 (30.00)
		n=19(23.75)	n=19(23.75)	n=19(23.75)	n=22(27.5)		n=79
When tackling assignment, it is not clear what would count as successful answer	Agree	6 (31.58)	12 (63.16)	4 (21.05)	9 (40.91)	p = 0.252	31 (39.24)
	Neutral	8 (42.11)	7 (36.84)	10 (52.63)	8 (36.36)		33 (41.77)
	Disagree	5 (26.32)	0 (0)	5 (26.32)	5 (22.73)		15 (18.99)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
The assignments are not very challenging	Agree	3 (15.79)	0 (0)	3 (15.00)	1 (4.55)	p = 0.632	7 (8.75)
	Neutral	3 (15.79)	3 (15.79)	3 (15.00)	3 (13.64)		12 (15.00)
	Disagree	13 (68.42)	16 (84.21)	14 (70.00)	18 (81.82)		61 (76.25)

Students' Experiences of Frequency and Timely Feedback All p-values were above $p > 0.05$, indicating no significant difference between years (Table III, below). Several students across the years felt that on this course, they do not get sufficient feedback on how they are doing (42.5%; $n=34$), and more than half of the students

reported that the feedback is not delivered timeously (67.5%, $n=54$). Many students across all years found that whatever feedback they get comes too late to be useful (47.5%, $n=38$), and the majority agreed that they would learn more if they received more feedback (77.5%, $n=62$).

Table III: Students' Experiences in terms of quantity and timing of feedback

Quantity and timing of feedback		1 st year n (%)	2 nd year n (%)	3 rd year n (%)	4 th year n (%)	p-value	Overall n (%) 80 (100)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Get plenty of feedback on this course	Agree	4 (21.05)	4 (21.05)	3 (15.00)	8 (36.36)	p = 0.314	19 (23.75)
	Neutral	6 (31.58)	8 (42.11)	9 (45.00)	4 (18.18)		27 (33.75)
	Disagree	9 (47.37)	7 (36.84)	8 (40.00)	10 (45.45)		34 (42.5)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Feedback comes very quickly	Agree	3 (15.79)	0 (0)	2 (10.00)	3 (13.64)	p = 0.158	8 (10.00)
	Neutral	6 (31.58)	3 (15.79)	6 (30.00)	3 (13.64)		18 (22.50)
	Disagree	10 (52.63)	16 (84.21)	12 (60.00)	16 (72.73)		54 (67.50)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Hardly any feedback in assignments when received back	Agree	8 (42.11)	3 (15.79)	5 (25.00)	12 (54.55)	p = 0.108	28 (35.00)
	Neutral	3 (15.79)	8 (42.11)	8 (40.00)	4 (18.18)		23 (28.75)
	Disagree	8 (42.11)	8 (42.11)	7 (35.00)	6 (27.27)		29 (36.25)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
When things are wrong or misunderstood – there's not much guidance about it	Agree	8 (42.11)	9 (47.37)	9 (45.00)	12 (54.55)	p = 0.765	38 (47.50)
	Neutral	4 (21.05)	6 (31.58)	4 (20.00)	7 (31.82)		21 (26.25)
	Disagree	7 (36.84)	4 (21.05)	7 (35.00)	3 (13.64)		21 (26.25)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Learn more if received more feedback	Agree	12 (63.16)	16 (84.21)	15 (75.00)	19	p = 0.461	62 (77.5)
	Neutral	3 (15.79)	3 (15.79)	4 (20.00)	2 (9.09)		12 (15.00)
	Disagree	4 (21.05)	0 (0)	1 (5.00)	1 (4.55)		6 (7.50)
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80
Whatever feedback comes too late to be useful	Agree	11 (57.89)	9 (47.37)	9 (45.00)	9 (40.91)	p = 0.464	38 (47.50)
	Neutral	2 (10.53)	5 (26.32)	9 (45.00)	9 (40.91)		25 (31.25)
	Disagree	6 (31.58)	5 (26.32)	2 (10.00)	4 (18.18)		17 (21.25)

Students' Experiences in terms of Quality of Feedback

All of p-values were above $p > 0.05$, except of the question of that feedback mainly told them how well they are doing in relation to others ($p = 0.015$) which indicated a significant difference between years (Table IV, page 81). Majority of the students in 2nd year stated that feedback does not mainly inform them on how they are doing in relation to others (84.21%; $n=16$). Both 3rd (55% $n= 11$) and 4th

(36.36% $n=8$) year students are neutral and equal to the number of students that disagree about how feedback mainly tells them how they are doing.

The majority of the students across all years agreed that once they received and read feedback, they could understand why they got the mark they did but can seldom see from the feedback what they needed to do to improve (47.5%; $n=38$). (Table IV, page 81).

Table IV: The students' experiences in terms of quality of feedback

What you do with the feedback		1 st year n (%)	2 nd year n (%)	3 rd year n (%)	4 th year n (%)	p-value	Overall n (%) 80 (100)	
		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)		n=80	
Reads the feedback carefully and try to understand what the feedback says	Agree	14 (73.68)	17 (89.47)	14 (70.00)	19 (86.36)	p = 0.371	64 (80.00)	
	Neutral	5 (26.32)	2 (10.53)	4 (20.00)	3 (13.64)		14 (17.50)	
	Disagree	0 (0)	0 (0)	2 (10.00)	0 (0)		2 (2.50)	
One use feedback to go back over what was done in the assignment		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.236	n=80	
The feedback does not help with any subsequent assignments		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.416	n=80	
The feedback prompts to go back over material covered earlier in the course		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.401	n=80	
One doesn't use the feedback for revising		n=19(23.75)	n=18(22.5)	n=20(25)	n=22(27.5)	p = 0.140	n=79	
One tends to read for marks		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	P= 0.554	n=80	

Utilisation of Feedback from Online Assessments given to Students: All of p-values were above $p > 0.05$, indicating no significant difference between years (Table V, page 82). The majority of the students across the years found that once they read the feedback carefully and tried to understand what the feedback was saying,

they could work on improving (80%; n=64). More than half of students across all years reported that they used the feedback to go back over what they had done in the assignments (63.75%, n=51), and more than half of students from across all years did use the feedback for revising (56.25%; n=45).

Table V: Utilisation of feedback from online assessments given to students at UKZN

Examination and Online Learning		1 st year n (%)	2 nd year n (%)	3 rd year n (%)	4 th year n (%)	p-value	Overall n (%) 80 (100)
Preparing for the exam was mainly a matter of memorising		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.394	n=80
	Agree	6 (31.58)	9 (47.37)	3 (15.00)	6 (27.27)		24 (30.00)
	Neutral	4 (21.05)	3 (15.79)	7 (35.00)	5 (22.73)		19 (23.75)
	Disagree	9 (47.37)	7 (36.84)	10 (50.00)	11 (50.00)		37 (46.25)
Doing the exam brought things together		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.100	n=80
	Agree	12 (63.16)	4 (21.05)	4 (20.00)	10 (45.45)		30 (37.50)
	Neutral	5 (26.32)	10 (52.63)	9 (45.00)	5 (22.73)		29 (36.25)
	Disagree	2 (10.53)	5 (26.32)	7 (35.00)	7 (31.82)		21 (26.25)
Learnt new things while preparing for the exam		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.019*	n=80
	Agree	15 (78.95)	15 (78.95)	5 (25.00)	16 (72.73)		51 (63.75)
	Neutral	4 (21.05)	1 (5.26)	10 (50.00)	3 (13.64)		18 (22.50)
	Disagree	0 (0)	3 (15.79)	5 (25.00)	3 (13.64)		11 (13.75)
Understanding things better as a result of the exam		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.174	n=80
	Agree	13 (68.42)	11 (57.89)	6 (30.00)	9 (40.91)		39 (48.75)
	Neutral	2 (10.53)	5 (26.32)	10 (50.00)	8 (36.36)		25 (31.25)
	Disagree	4 (21.05)	3 (15.79)	4 (20.00)	5 (22.73)		16 (20.00)
Probably forget most of it after the exam		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.025	n=80
	Agree	9 (47.37)	10 (52.63)	4 (20.00)	12 (54.55)		35 (43.75)
	Neutral	6 (31.58)	3 (15.79)	10 (50.00)	5 (22.73)		24 (30.00)
	Disagree	4 (21.05)	6 (31.58)	6 (30.00)	5 (22.73)		21 (26.25)
In the exam can get away with not understanding and still get good marks		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.779	n=80
	Agree	4 (21.05)	4 (21.05)	4 (20.00)	4 (18.18)		16 (20.00)
	Neutral	5 (26.32)	5 (26.32)	8 (40.00)	5 (22.73)		23 (28.75)
	Disagree	10 (52.63)	10 (52.63)	8 (40.00)	13 (59.09)		41 (51.25)

Students Experiences of Examination and Online Learning across all years

All of p-values were above $p > 0.05$, except one which indicates that students forget most of the learning after the exam $n=51$; 63.75%, ($p = 0.019$), indicating a significant difference between years (Table VI, above). The majority of the students in 1st, 2nd and 4th year reported that they probably forgot all the learning after the exam

(47.37% $n=9$); 52.63% $n=10$ and 54.55% $n=12$ respectively). Half of the students in 3rd year reported that they were neutral (50% $n=10$).

The majority of students across all years agreed that they found it difficult to learn new content while preparing for the exam (63.75% $n=51$), but more than half agreed that in the examination, you cannot get away with not understanding and still get good marks (51.25%; $n=41$). (Table VI, page 83).

Table VI: Occupational therapy students' experiences with examination and online learning across all years

Examination and Online Learning		1 st year n (%)	2 nd year n (%)	3 rd year n (%)	4 th year n (%)	p-value	Overall n (%) 80 (100)
Preparing for the exam was mainly a matter of memorising		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.394	n=80
	Agree	6 (31.58)	9 (47.37)	3 (15.00)	6 (27.27)		24 (30.00)
	Neutral	4 (21.05)	3 (15.79)	7 (35.00)	5 (22.73)		19 (23.75)
	Disagree	9 (47.37)	7 (36.84)	10 (50.00)	11 (50.00)		37 (46.25)
Doing the exam brought things together		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.100	n=80
	Agree	12 (63.16)	4 (21.05)	4 (20.00)	10 (45.45)		30 (37.50)
	Neutral	5 (26.32)	10 (52.63)	9 (45.00)	5 (22.73)		29 (36.25)
	Disagree	2 (10.53)	5 (26.32)	7 (35.00)	7 (31.82)		21 (26.25)
Learnt new things while preparing for the exam		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.019*	n=80
	Agree	15 (78.95)	15 (78.95)	5 (25.00)	16 (72.73)		51 (63.75)
	Neutral	4 (21.05)	1 (5.26)	10 (50.00)	3 (13.64)		18 (22.50)
	Disagree	0 (0)	3 (15.79)	5 (25.00)	3 (13.64)		11 (13.75)
Understanding things better as a result of the exam		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.174	n=80
	Agree	13 (68.42)	11 (57.89)	6 (30.00)	9 (40.91)		39 (48.75)
	Neutral	2 (10.53)	5 (26.32)	10 (50.00)	8 (36.36)		25 (31.25)
	Disagree	4 (21.05)	3 (15.79)	4 (20.00)	5 (22.73)		16 (20.00)
Probably forget most of it after the exam		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.025	n=80
	Agree	9 (47.37)	10 (52.63)	4 (20.00)	12 (54.55)		35 (43.75)
	Neutral	6 (31.58)	3 (15.79)	10 (50.00)	5 (22.73)		24 (30.00)
	Disagree	4 (21.05)	6 (31.58)	6 (30.00)	5 (22.73)		21 (26.25)
In the exam can get away with not understanding and still get good marks		n=19(23.75)	n=19(23.75)	n=20(25)	n=22(27.5)	p = 0.779	n=80
	Agree	4 (21.05)	4 (21.05)	4 (20.00)	4 (18.18)		16 (20.00)
	Neutral	5 (26.32)	5 (26.32)	8 (40.00)	5 (22.73)		23 (28.75)
	Disagree	10 (52.63)	10 (52.63)	8 (40.00)	13 (59.09)		41 (51.25)

*p<0.05 indicates a significant difference

DISCUSSION

This study provided insight into the University of KwaZulu-Natal occupational therapy students' experiences with online assessments and feedback during the COVID-19 pandemic in South Africa. The study identified that the majority of student's had access to the internet and resources such as operational laptops and smartphones, which facilitated the engagement with remote learning. This was due to UKZN and NSFAS counteracting student issues by providing IT support for laptops²⁹.

The first aspect that this study focused on was the experiences of students in terms of the distribution of time and effort to their studies, which varied according to the years of study. The results revealed that students felt that study time and effort are allocated narrowly to assessed topics and that regular studying is required to do well in the degree. A previous study concluded that to ensure

that students are learning effectively, remote teaching requires students to complete more assignments than traditional courses. Additionally, assignments may aid students in making up for a lack of one-on-one time with lecturers¹⁸.

The study also identified the experiences of students' pertaining to assignments and online learning. Majority of students across all years experienced assignments as very challenging, and tackling them made them think. They reported that they learn more from doing assignments than studying the course material and cannot get good marks without understanding the work content. Overall, it was revealed that occupational therapy students had a positive experience with online assessment. The above results are reinforced by a study which revealed that online learning promoted self-learning, where the student actively participates in the learning process³⁰. More importantly, students acquired new learning

experiences, particularly self-discipline and time management³⁰.

Regarding frequency and timing of feedback, the results revealed that most students did not feel that they received feedback in time through online assessments. Delayed feedback impacted their learning as they reported that when they did receive feedback, it was useful and enabled them to understand why they got the mark which they were allocated. This enabled them to learn from the feedback and ensure assessments were sufficient. These statements were true across all the years of study, indicating that the quality and timing of feedback given throughout the degree are insufficient and need improvement. A study shows that students have used teacher feedback to gauge their progress, and by using the lecturers' input, they can also assess their internal growth³¹. Additionally, lecturers are typically more successful in identifying errors in students' work than students finding errors in their own, hence why giving accurate and timely feedback is crucial in ensuring student learning and fair assessment³¹.

Once received, students perceived the quality of feedback to be very informative regarding understanding concepts better and allowing them to see how to improve in the future. Understanding the feedback also helped students understand why they achieved their marks, which further contributed to their learning process. A research study found that giving students marks, feedback, and discussion on their answers provided the most efficient guidance for effective learning to take place³². Students also indicated that they did not understand some of the feedback they received, which then negatively impacted the quality of their online learning experience as a whole. This indicated that feedback is useful but not always comprehensible by students. Majority of second years indicated that feedback does not mainly indicate how they doing in relation to others.

In contrast, the majority of third years remained neutral and fourth years equally disagreed and remained neutral. The study did not include how they think they are doing in relation to achieving the learning outcomes. This shows that as the years of study progress, there is a shift regarding how students perceive the feedback they receive. In the senior years of study (years three and four) feedback should primarily be used by students to improve their own performance, which does not appear to be the case, as many use it to compare to other peers. There is evidence that giving written feedback with explanations is more effective than giving marks³². This indicates that lecturers should emphasise providing students with written feedback, which includes explanations on how to improve moving forward, instead of just giving students their marks without much direction on how to improve for the future. This finding demonstrates that a quality approach to assessment (descriptive qualitative feedback) is more effective than quantitative feedback (marks and percentages). A study found that students performed much better on tests when given feedback in the form of brief written remarks rather than grades alone and that feedback does boost engagement, however if the feedback is not effective, then it has no bearing on performance³².

The majority of the students had a positive perception regarding the use of feedback from online assessments. According to the study results, students across different years reported that reading the feedback carefully and trying to understand it assisted in allowing the students to go back over what they have done in the assignments for revision purposes and exams. Upon reading and understanding the feedback, students found it useful. They were, therefore more interactive and engaged with the feedback, which assisted them more with regard to their assignments and exams. This collated with a study done by Kim-Daniel³³ and team on examining students' feedback engagement and assessment experiences, which emphasised that feedback needed to be perceived as useful by students so that students could interact and

and use feedback given³³. During the pandemic, lecturers interacted with students using online feedback. This emphasises the significance of the assertions of Ndaba⁹ and colleagues that feedback during the learning process is crucial, and feedback should serve the objective of increasing learning⁹. This was seen in the study as the more detailed and understandable the feedback was, the more the students used that feedback to enhance their learning.

Over half of the students across all years had a positive experience with examinations and online learning; it allowed them to study more and learn new topics while preparing for the exam; assessments also functioned as a factor that brought things together for their understanding. This correlates with studies done^{30,34} that reflected that examinations and online learning allow learners to access online materials around the clock. Moreover, it also encouraged self-directed learning, where students also play a role in learning. This could be the outcome of a variety of factors, some of which include: having access to voice-recorded PowerPoints and tutorials which they could revisit any time for revision and exam, the university working with NSFAS to ensure that students have access to data, laptops and every student getting an opportunity to participate in the discussion without the fear of excessive attention or confrontation and to engage in the lessons from the comfort of their own environments¹⁶. More factors included support being provided to guarantee that no student fell behind. Staff at higher educational institutions were encouraged to conduct tutorials and ensure assessment validity.

Online assessments consisted of various question styles, including short answers, long answers, multiple choice questions and essays. The type of online assessment also affected the student's online learning experiences. Students were also urged to interact with academic professionals if they required further assistance in clarifying theoretical subjects; this was also a positive factor that resulted in the students having a positive experience⁹.

Limitations of the study

The lack of clarity and specificity in the AEQ were said to influence the validity of the AEQ negatively, with some items in the questionnaire being open to misinterpretation by being quite vague, making it difficult for respondents to answer accurately²⁵. There were limitations to the sample size as several other studies with this cohort of students co-occurred; thereby affecting voluntary participation. The study was focused on occupational therapy students from one university therefore, results are contextually relevant to one faculty.

CONCLUSION

The COVID-19 pandemic has rapidly changed how teaching, learning, and assessment are carried out. It brought about a global crisis in higher education as students were required to rapidly transition from in-person teaching, learning, and assessments to an online platform. This study describes how the UKZN occupational therapy student's experienced online assessments during the COVID-19 pandemic in South Africa. The results reveal that students had a positive experience with online assessments; however, the transition was challenging. Most students across all years experience assessments as challenging as it made them think critically, allowing for improved learning. Students report that they learn more from doing assessments than studying the actual course material which also ensures better learning and the need for feedback helps students understand the course and where they can improve. Therefore, emphasis is placed on receiving feedback in time. It is therefore recommended that lecturers consider the above factors, such as the difficulty levels of assessments, the number of assessments, timely and quality of feedback of assessments and the quality of assessments to ensure an effective and valuable online learning process for students.

Acknowledgements

The COVID-19 pandemic influenced the nature of the reported work. All participants who engaged in the research study voluntarily consented to participate. The authors would like to acknowledge the biostatistician's contribution to this study.

Conflicts of interest

All authors have no conflict of interest to declare.

Author contributions

The study was conceptualised and designed by Pragashnie Govender & Gina Rencken. Tasneem Hoosen, Faatimah Salajee, Merissa Naidoo, Nokwanda Ntombela, Tasmiya Aron and Nothando Mchunu were responsible for the data acquisition with analysis an interpretation occurring together with Pragashnie Govender and Gina Rencken. All authors were responsible for the drafting the work; Pragashnie Govender, Gina Rencken and Tasneem Hoosen revised it critically for important intellectual content; and final approval of the version to be published.

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