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Effective Teaching in the 21st Century: Investigating Barriers and Solutions from One University in Assam, India

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ABSTRACT

Teaching in the 21st century era is more dynamic than before. Notably, the emergence of technology in education has radically transformed the pedagogical practices of teachers in the 21st century. Because of these changes, new challenges for teachers in schools and colleges also emerge. However, the study was aimed at investigating the contemporary challenges teachers encounter in higher education in the 21st century. The study further explored the possible solutions to the challenges. The study employed qualitative case study design in order to thoroughly understand the in-depth perception of teachers towards the topic under investigation. The data were collected using a semi – structured interview which was administered telephonically. Additionally, a sample of 5 teachers from 5 departments in the selected University was drawn based on convenience as it was time for Covid-19 which restricted movement and physical interaction. Overall, findings from the study suggest that teachers in the 21st century era are confronted with numerous challenges which adversely affect the teaching – learning process. The challenges can be broadly summarised as technological, adjustment and resource-based challenges. In order to address these challenges, the participants recommended that there should be adequate research, provision of CPD courses, proper technical support on how to integrate technology in the teaching – learning processes.

INTRODUCTION

Teaching has always been considered as a noble profession, daunting and challenging task (Parimala, 2019). Undeniably, with the emergence of new philosophies of teaching in the 21st century and the rise of digital and smart learning in the field of education, teachers' role in education has incredibly evolved over a period. On this basis, one could concur with Malik (2018) & Chere-Masupha (2018) that technology advancement in the field of education has contributed largely into several challenges that teachers encounter at the higher education institutions. Today, a teacher is confronted with the burdensome task of keeping him/herself updated with the latest inventions and strides in the field of education and science. Therefore, it is not only a priority but also necessary for teachers to upgrade their skills and knowledge from time to time (Malik, 2018).

Similarly, OECD (2009) observed that teaching is a very demanding job and it is impossible for all teachers involved to be effective professionals and to remain that way through time. By worthy of noting that teaching is a demanding job, it is evident that there are several challenges that teachers are faced with in the institutions of higher learning globally. Interestingly, much is known about the multifaceted role of a teacher which includes; research, student's supervision, teaching itself, guidance, and counselling of students, among others. Therefore, the teaching profession and teachers at large are been exposed to different challenges they need to deal with in the 21st century.

Nevertheless, a considerable amount of literature has

been reviewed on the challenges teachers face in higher education in the 21st century. Kayange & Msiska (2016) study established that majority of the teachers in China utilize same traditional lecture methods which do not engage the students. Nababan, Purba, & Siburian (2020) submit the same concurrence with the preceding scholars that the role of the teacher in the past was simply to impart knowledge with limited students' engagement. This was because teachers were considered as reservoirs of knowledge and students; being the recipients of the knowledge, were denied the chance to question their teachers. For clarity, this is the education system Paulo Freire referred to as the 'Banking Model of Education' as teachers were depositing knowledge into the minds of the students. On this basis, it is therefore discernible that making students involved in the learning process is significant as students will be able to acquire the 21st century skills such as communication, collaboration, and critical thinking among others (Mokhets'engoane & Pratima, Effective Teaching Practices In Higher Education With Special Reference to the 21st Century: A Case of Tezpur University, India, 2022). Similar argument has been raised by Kurata, Mokhets'engoane, & Selialia (2022) that in the 21st century, learners must be given the opportunity to discover new ideas for themselves. For that reason, if students are deprived of the opportunity to engage and participate in their own learning, then it is arduous for them to understand and become interested in the teaching – learning process. As such, teachers are encouraged to acquaint themselves with new skills to meet the needs and interests of the learners of the 21st

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century.

Furthermore, some scholars hold the view that education in the 21st century era is more dynamic than before as there is emergence of new innovations in technology and fresh approaches in pedagogy which are perpetually transforming teaching (Malik, 2018). Because of the transformations, there is emergence of new challenges for teachers in schools and colleges. Raturi (2021) observed that teachers in the 21st century in India have technological challenges. The author made a postulation that the new technology is making E- learning and blended learning a new normal in most higher education institutions in India. The author further argues that teachers do not have adequate skills to incorporate technology in the teaching – learning process. The observation by Raturi (2021) resonates with Islam, Beer, & Slack (2015) assertion that technology through E-learning has brought many challenges to teachers in higher education. The authors assertion can be put as thus, *“As e-learning is currently widespread, academics who are not well equipped technically to handle developments of materials and delivering online modules are hampering progress, and they require extensive skills development.”* Moreover, another challenge raised by Islam . (2015) is that there is inadequacy of technical support needed for teachers to effectively implement instructional objectives within the classroom. The authors strengthen that due to insufficient investment in infrastructural facilities and technological assistance, academics tend to lack behind in providing education relevant to the needs of the 21st century. The above articulation of Beer and Islam corresponds with Mgimba & Mwila (2022) argument that inadequate infrastructure negatively influences the academic performance of the students. In addition to the conclusions drawn by Mgimba and Mwila (2022), Pallai (2013) augments that insufficient rural infrastructure and scarcity of good teachers adversely affect the teaching – learning process. Because of that, governments are encouraged to increase funding for schools in order to provide quality teaching and learning needed in the 21st century.

In the context of India, even before the advent of covid-19 that disrupted the entire education system, there was already engagement of different stakeholders in reforming the national curriculum to address the demands of the 21st century. Consequently, the National Education Policy (NEP) of 2020, which is the first education Policy of the 21st century, came in response to the challenges faced by the education sector (Ministry of Human Resource Development, 2020). Fundamentally, the policy advocates for a more learner centred pedagogy where the learners’ needs are prioritized. The policy states, *“Education thus, must move towards less content, and more towards learning about how to think critically and solve problems, how to be creative and multidisciplinary, and how to innovate, adapt, and absorb new material in novel and changing fields.”* What we can conclude from the preceding statement is that the policy came into existence in order to salvage the negative impacts of the former education system in India

and to align their education system in harmony with the present needs of the 21st century.

Based on the above literature reviewed, this study is therefore intended to further explore the contemporary challenges teachers encounter in the 21st century as there is a dearth of literature especially when the world had been adversely affected by Covid-19 pandemic which impacted on their pedagogical practices. In addition, the study also seeks to explore the possible solutions to the mentioned challenges in pursuit of effective teaching in higher education.

Objectives of The Study

1. To explore contemporary challenges faced by teachers in higher education in the 21st century
2. To explore possible solutions to the challenges faced by teachers in higher education in the 21st century

METHOLODOLOGY

This study adopted a qualitative case study research design which was reinforced by interpretive paradigm. Interpretive paradigm was adopted because it aims to understand the reality constructed in the natural environment in which participants live. Thus, it aims to make sense of the world through the participants’ views living in that environment (Thahn & Thanh, 2015; Cohen, Monion, & Morrison, 2007). Therefore, the researcher was able to understand the teachers’ views on the 21st century challenges and possible solutions in higher education context.

Population in this study was constituted by the teachers from Ten departments in the School of Humanities and Social Sciences at Tezpur University. From this population, a sample of 5 teachers from 5 departments was drawn based on convenience as it was time for Covid-19 which restricted movement and physical interaction. Semi- structured interviews were employed to collect data from the teachers. The questions were administered telephonically and the interview was recorded using a mobile phone. The data collected were transcribed, coded, and analysed using a thematic analysis approach.

RESULTS AND DISCUSSION

Challenges Facing Teachers in Higher Education

The data on challenges experienced by teachers of the 21st century in higher education were analysed thematically. The following themes emanated from their responses, 1) challenges posed by technology, 2) Challenges posed by lack of resources, 3) Adjustment Challenges.

Technological Challenges

The emergence of digital technologies has made radical changes in higher education. Without a doubt, the use of technologies has been accelerated by the pandemic that affected every education sector across the globe. In relation to this, teacher 5 has reported that most teacher during the period of Covid-19 were struggling with online

teaching as they lacked skills and competence required to make teaching effective. In particular, he said,

... one of the challenges I have observed was that most teachers did not have sufficient skills and techniques for operating ICT based tools which somehow affected their teaching. For example, even to open present a screen on google meet was a very big challenge to most teachers as it was for the first time using such a platform to teach.

Furthermore, teacher 3 seemed to share the same sentiments substantiated by teacher 5. He validated the previous statement by indicating that most teachers, herself included, were for the first time exposed to online teaching through Google meet, zoom cloud meeting etc. The above articulations authenticate Chere – Masupha (2018) as well as Raturi (2021) findings that most teachers lack appropriate technological skills which hinders them to deliver the 21st century curriculum without difficulty. Teacher 1 reported that access to digital resources is one of the biggest challenges' teachers face in the 21st century in higher education. He reported that most universities in India are still lacking behind in terms of digital resources to meet the growing needs of the 21st century. The insufficient resources contribute to teaching that is not effective as students will not be acquainted with the digital skills that are needed in this century.

He put it succinctly,

...because 70% of the population in India is rural, this possesses a threat to our education. In most instances you may find that digital resources such as internet, online libraries, computes etc are insufficient in most universities. Then, how do we expect learners to learn from such areas especially in the time of pandemic like Covid-19?

He further reported that it is not only the challenge of digital facilities but also the challenge of having technical skills on how to use the already limited available digital resources. He claimed that teachers lack technical skills even on how to access relevant materials online using the technology. In the same vein, Nababan . (2020) postulates that teachers do not only have to master the aspects of the taught content but also expected to completely understand technology and fundamentally be innovative and creative.

The participant 1, 4, and 5 have also indicated that it is not only about teachers, but also about the students who are the recipients of the content taught. They were of the perception that when a teacher uses a particular form of digital tool in the classroom, he/she should also check whether that tool is comfortable with the students or not. Because if the students will not be able to come up with what the teacher is using then learning will not happen.

Participant 4 raised a worrisome concern over the use of virtual laboratories since they are inaccessible. Again, the participant lamented that not all laboratory activities can be conducted virtually.

He said,

The most difficult thing that has been brought by online learning during covid-19 pandemic is how students from the engineering and science related subjects conduct their research. It is difficult. They cannot do anything. So, this becomes a big challenge to us as teachers.

Teacher 2 further raised a worrisome concern that it is very difficult to conduct assessment in the online learning platform. Reference was made to the period of Covid -19 pandemic where the teaching – learning process shifted to an online mode. He further showed that even national examinations like TET, State board exams were postponed because it was very difficult to make assessments using this technology. Similarly, the study conducted by Mokhets'engoane & Malunguja (2021) concur with the sentiments of teacher 2 that online assessment possesses a threat to quality education received by the students as lack of monitoring increases the chances of students cheating in the examinations. He has put it this way,

As much as technology is important in the 21st century, there are some areas where it is difficult to use technology alone to do the work needed. Assessment is very difficult to do that is why even state board examinations were postponed.

Challenges posed by Lack of Resources

Teaching materials or learning resources are very essential in the teaching fraternity as they mainly support teaching and learning. Through the learning and teaching resources, students are provided with a learning experience that is effective enough to invoke interaction not only among students themselves but also between the teachers. However, most teachers have reported that resources are lacking in most universities in India. Participant 3 has postulated that these lack of teaching materials and resources make them to suffer and provide outdated content to the students. This according to him make students who cannot be self – reliant since their teachers are feeding them limited content due to lack of recent textbooks among others.

He said,

... I believe India is lacking behind many countries such as USA, China, and UK among others because of insufficient resources that should be used by teachers. It goes without saying that even the research they conduct would be affected if resources are limited.

Another participant claimed that lack of infrastructural facilities such as classrooms, buildings, laboratories are still missing in most universities and colleges in India. Evidently, high quality infrastructure facilitates better instruction, improves students' outcome, and reduce dropout rates (Lekhanya & Raselimo, 2022). Therefore, if there are no good infrastructure that means our education system will also suffer.

"...In India teachers are facing a huge problem of insufficient library books. How do you expect a teacher to conduct research if there are no books in the library" – Teacher 1 articulated.

The above assertion made by teacher 1 shows that Libraries across the country are insufficient. Adding to that, there are lack of books especially on the 21st century education. If this facility is lacking in higher education institutions it possesses a threat to the kind of students the teachers will produce. Equally important, a research scholar can never successfully conduct his investigations and researches without the help of a library with relevant

materials.

Along similar lines, participant 3 has mentioned that if resources such as library are lacking then teachers become incompetent as they cannot keep on reading good books for continuous professional development. It means that the content they will deliver to the students will not be sufficient in the 21st century era. He also acknowledged the importance of the digital library.

... it is vital that a library provides electronic and digital services to its students. Through digital library there is convenience for students to search any information anytime.

Unfortunately, In the context of India e – libraries are limited and even inaccessible by majority of the teachers – said teacher 3. This shows that there is a big challenge of resources which affects the quality of education that students are supposed to be getting.

Adjustment Challenges

Several challenges were reported in relation to adjustment. Most of the teachers who are teaching in higher education institutions in India are recipient of the traditional system of education which was more teacher – dominated. Traditionally, this method of teaching encouraged a teacher to direct students to learn through memorization and recitation techniques thereby not developing their critical thinking problem solving and decision-making skills (Nababan, 2020). Undoubtedly, new pedagogical innovations have transformed today's classrooms. We cannot refute the fact that the 21st century education is predominantly being student-centric and lessons are customized instead of being generic to address specific gaps in student learning (Kurata et al., 2022). In contrast to the New National Education Policy 2020 which allows students to own their learning, participant 1, 3, and 5 argued that it is difficult to do so because they have been practising their teaching for years using the traditional techniques.

Participant 5 reinforced,

I find it difficult to transform my teaching because for the past 10 years of my teaching career I have been using teacher – dominated teaching methods in my classes. As much as it is required from us it is not that simple because we think students once they are given freedom, they will not do their work the way I anticipate.

Teacher 1 has said,

... this thing of learner centred approach to teaching requires a lot of time. It means that the teacher should be patient with every learner and this becomes a burden to us as teachers because there are many students we must deal with, a lot of research to do...

The implication is that these teachers cannot adjust to this notion of allowing learners to think critically and own the learning process. Rather, they believe that this is impossible especially if the teacher wants to cover a certain amount of content within a stipulated time. This means that if students own the learning process, the pace and the time is to be set by them and the teachers should be patient with them.

Strategies that can be adopted to address the

challenges encountered by the 21st century teachers

The strategies that were indicated by these teachers were categorised under the following themes; 1) Research, 2) Continuous Professional Development, 3) Appropriate Training support, 4) Improvement of infrastructural facilities.

Engagement in Research

All the teachers interviewed echoed the same sentiments that research is of paramount significance in higher education as it assists teachers to stay updated and relevant to address these contemporary challenges. Several studies (Mokhsets'engoane & Pallai, 2022; Dilshad, 2019) have shown that the objective in academic research is to produce new knowledge but for most teachers doing research, the purpose is to improve practice while being informed by theory at the same time. This implies that for teachers to improve the content knowledge they impart to students; they need to keep visiting academic websites and libraries so that they remain relevant in the drastically changing world.

Teacher 5 has put it better when he said,

... I think research is the main weapon that can bridge the gap between teachers and the students.

The statement highlighted by teacher 5 simply states that for teachers to impart knowledge relevant for these students of the 21st century, a lot of research should be undertaken by teachers. He further emphasised that each time new innovations and pedagogical advances come into existence, a teacher that does not conduct research will be totally left behind hence giving knowledge that is irrelevant and outdated for the 21st century.

Teacher 3 seemed to share the same sentiments with the teacher 5. In his statement during the interview he said,

... the only difference between competent and incompetent teachers in higher education these days is shown by lack of research. In Tezpur University Research is mandatory if you are a Lecturer.

Another important aspect reported by teacher 1 was that it is through research those modern strategies of teaching that accommodates the present needs and interests of the learners can be recognised. In order to understand the individual differences that exist within the classroom the teachers are supposed to do a lot of research to supplement all what they already know.

Continuous Professional Development (CPD)

Continuous Professional Development (CPD) has been considered as one of the best strategies to be adopted by teachers in curbing the challenges.

Teacher 3 has said,

There is reluctance for teachers who have been in the profession for many years to adjust their teaching styles. It is only through CPD that they will learn new and latest development in the teaching field which will assist them in changing their pedagogical practices.

This response given by teacher 3 indicates that teachers are struggling to adjust their teaching styles especially if they have been teaching for quite a long time. But the solution as pointed out by the teacher is to let teachers

engage in CPD courses that will keep them updated and relevant. This idea is further supported by the findings of both Thaanyane (2010) and Motso'ane (2004) that unless teachers are adequately equipped through professional development courses, they will always remain irrelevant in fast changing world.

The respondent further specifies that CPD assist teachers in keeping their professional knowledge and skills updated. Arguably, the current generations have a unique approach which is totally different from the previous generations. This strategy addresses the challenge of adjustment of teachers and not being able to cater the learning according to the needs of the students. it is therefore vital to engage in CPD.

Additionally, teacher 1 has indicated that in the 21st century, most of the things are done Online. There are free courses for professional development that are provide by different organisations and universities for free. He made an example of Coursera, MOOCS, Edx and Commonwealth platform where several courses in relation to different are provided for free of charge. It is therefore upon the teachers to decide to improve their knowledge and skills in their field of interest frequently. He further pointed out that to address the challenge of lack of content and inappropriate skills needed in the 21st century, CPD allows them to collaborate and communicate with teachers from other universities who may be experts in different fields of study. This collaboration increases knowledge sharing among the teachers themselves so they will be able to gauge themselves in relation to other universities

He puts it this way,

... CPD allows teachers to make friends from different universities either nationally or internationally. Through the knowledge sharing from other colleagues', teachers are able to learn new teaching styles hence improving the quality of education.

The above assertions on CPD by the participants coincide with Dilshad . (2019) as he also contends that CPD courses should be made mandatory so that teachers improve their skills and knowledge. Along similar lines, Kurat . (2022) hold the perception that teachers need frequent trainings through workshops, seminars, and colloquiums to update skills and knowledge needed for effective teaching and learning process.

Appropriate Training Support

As a result of challenges experienced by teachers on how to use technology for effective teaching in the classroom, all teachers encouraged that there should be regular training provided to teachers in order to improve their inadequate skills on how to integrate technology in the teaching – learning process. Teacher 2 reported that during Covid-19 pandemic when classes were conducted using technological resources, most teacher experienced a big challenge. Others had a challenge of using Screencast for recording lectures for students. Even to operate G-suite was a very big challenge. In order to improve this situation, he articulated that,

... appropriate and frequent training on how to use ICT based tools for the teaching – learning process should be conducted so that we improve the limited skills that we have.

Participant 4 reported similar perceptions indicating that training programs should be made compulsory so that teachers improve their skills. He emphasised on teachers attending Seminars and more recently Webinars. In a seminar, there are keynote speakers who act as experts in their field of interest. Through this seminar where experts from different fields are invited as key note speakers on issues such as technology integration in the classroom, teachers who lack information will be able to learn through such.

Another form of training as reported by teacher 2 was attending of workshops. Through workshop, teachers learn many skills like how to deal with students of the 21st century in the classroom. New skills such as integrating technology in the classroom are also acquired. A workshop is conceptualized as a brief educational program meant to empower participants with practical skills, techniques, or ideas which they can utilize at their work places on daily basis. In the workshop some teachers will have better knowledge on how to use technology or deal with individual differences in the classroom.

Teacher 2 articulated,

Workshops are very important for teachers to acquire new knowledge from other experts in the same field.

In order to improve their skills and knowledge on technology integration, it was suggested by participant 1 that teachers should attend conferences both nationally and internationally. The conferences normally discuss present and emerging issues in education. They talk about different techniques of teaching in the 21st century, constructivism, learner – centred approaches of teaching, adoption and integration of technology, online education, and many other emerging trends in the different fields. So, if teachers attend these conferences, they will be empowered with different techniques and skills from different scholars across the globe. Therefore, teachers will remain relevant and provide knowledge to students that will make them to be critical thinkers and global citizens.

Improvement of Infrastructural Facilities

To address the challenge highlighted by some of the teachers in relation to lack of resources and infrastructure, some teachers are of the perception that is the government responsibility to increase funding given to the Universities. Fortunately, Tezpur University gets funding from the government. However, the funding is not enough to cater for the needs of the institution. Available literature attests that improved facilities lead to quality education provided to the students (Baghdady & Zaki, 2019; Limon, 2016; Anaman, Zottor, & Egyir, 2022). The above literature substantiates the thoughts shared by teacher 2. The teacher explained that if infrastructural facilities such as library, ICT laboratories and SMART Classrooms can be increased, then the quality of education will be improved

and become one of the best universities in India and across the globe.

She articulated,

In Tezpur University there are lack of facilities such as SMART Classrooms which are a necessity in the 21st century. Also, good laboratories are needed. I believe it is the government responsibility to increase funding to improve the facilities we already have.

Teacher 2 was supported by teacher who reported that Universities should try to improve ICT facilities especially in this time of Covid -19 pandemic where everything is done online. He encouraged that such facilities are the need of the present era and teaching – learning process cannot be effective without them. Therefore, the universities across India should purchase ICT resources such as computers, laptops, and Wi-Fi facilities so that students can be provided with education they deserve. This was in response to the challenge of availability of ICT resources in Higher education.

CONCLUSION

This study set out to explore the challenges teachers face together with possible solutions to the existing challenges in higher education in the 21st century. The available evidence seems to suggest that teachers in the 21st century era are confronted with numerous challenges which adversely affect the teaching – learning process. Subsequently, teachers must improvise thus lowering the quality of education intended by the university policies. However, drawing from the findings, several challenges were highlighted including insufficient resources, technological challenges, and adjustment challenges. To address these challenges, the researcher recommends the University to find ways in which the funding giving to the university can be increased so that the challenge of SMART Classrooms, up to date library, good laboratories maybe curbed. Besides raising the amount of tuition fee paid by the students, the University should aim to increase enrolment of international students because the amount of money one international student pays is almost equivalent to 5 local students. This can therefore be another way of increasing the financial power of the university so that it secures the resources that should be utilized by the teachers for effective teaching.

REFERENCES

- Anaman, P., Zottor, D., & Egyir, J. (2022). Infrastructural Challenges and Student Academic Performance: Evidence From a Developing Nation. *International Journal of Innovative Science and Research Technology*, 7(11), 1189-1200.
- Baghdady, A., & Zaki, O. (2019). Secondary Education Governance in Sub-Saharan Africa. *World Innovation Summit for Education*, Qatar.
- Chere-Masupha, J. (2018). Personal Landscapes of Teacher Professional Identities Versus Digital Technology Adoption and Integration in Lesotho Schools. *International Journal of Learning, Teaching and Educational Research*, 17(3), 28-42. <https://doi.org/10.26803/ijlter.17.3.3>
- Cohen, E. G. (1994). Restructuring the Classroom: Conditions for Productive Small Groups. *Review of Educational Research*, 64(1), 1-35. <https://doi.org/10.3102/00346543064001001>
- Cohen, L., Monion, L., & Morrison, K. (2007). Research methods in education. Routledge.
- Dilshad, M., Hussain, B., & Batool, H. (2019). Continuous Professional Development of Teachers: A case of Public Universities in Pakistan. *Bulletin of Education and Research*, 41(3), 119-130.
- Islam, N., Beer, M., & Slack, F. (2015). E-Learning Challenges Faced by Academics in Higher Education. *Journal of Education and Training Studies*, 3(5), 102-112.
- Kayange, J., & Msiska, M. (2016). Teacher Education in China: Training Teachers for the 21st Century. *The Online Journal of New Horizons in Education*, 6(4), 204-210.
- Kurata, L., Mokhets'engoane, S. J., & Selialia, M. (2022). Teachers Experiences in Piloting the Integrated Curriculum in Lesotho: Challenges and Opportunities. *Canadian Journal of Educational and Social Studies*, 2(6), 49-60. <https://doi.org/10.53103/cjess.v2i6.80>
- Lekhanya, N., & Raselimo, M. G. (2022). Exploring Alignment Between the Lesotho Secondary DS Teachers' Pedagogy and Work Related Skills. *European Journal of Teaching and Education*, 13-27.
- Limon, M. (2016). The Effect of the Adequacy of School Facilities On Students' Performance and Achievement in Technology and Livelihood Education. *International Journal of Academic Research in Progressive Education and Development*, 5(1), 45-58.
- Malik, R. (2018). Educational Challenges in the 21st Century and Sustainable Development. *Journal of Sustainable Development Education and Research*, 2(1), 9-20.
- Mgimba, A., & Mwila, P. (2022). Infrastructural Challenges Influencing Academic Performance in Rural Public Secondary School in Iringa District, Tanzania. *Journal of Research Innovation and Implications in Education*, 6(2), 17-24.
- Mokhets'engoane, S., & Malunguja, G. (2021). Assessment of the Perception of India's International Students on Online Provision of Education: Challenges and Opportunities. Corona Pandemic: Exploring It's Multifarious Dimensions New Dehli: New Academic Publishers. 267-277.
- Mokhets'engoane, S., & Pratima, P. (2022). Effective Teaching Practices In Higher Education With Special Reference to the 21st Century: A Case of Tezpur University, India. *European Journal of Education Studies*, 9(7), 326-341.
- Motso'ane, P. (2004). The nature and extent of implementation of music education: A case Study of Mohakare primary school and Hoothlo Primary School in Maseru, Lesotho. [Masters Dissertation, University of Kwazulu Natal].
- Nababan, T., Purba, S., & Siburian, P. (2020). The Challenge

- of Being a Teacher in Industrial Revolution 4.0. In The Fifth International Seminar on Transformative Education and Educational Leadership (AISTEEL) Atlantis Press. 219-223.
- Pallai, P. (2013). Use of Educational Satellite in Teacher Education. *TechnoLearn: An International Journal of Educational Technology*, 3(1), 11-18.
- Parimala, G. (2019). Teachers Challenges. Times of India.
- Raturi, S. (2021, April 15). Challenges for Teachers Which Never Existed Before. India Today.
- Thaanyane, M. (2010). Teachers' experiences of implementing Business Education in three secondary schools in Maseru district, Lesotho. Masters Thesis, University of KwaZulu-Natal, Durban.
- Thahn, N., & Thanh, T. (2015). Interconnection Between Interpretivist Paradigm and Qualitative Methods in Education. *American Journal of Educational Science*, 1(2), 24-27.