

## Reforming the Examination System of Tribhuvan University: Strategies for Enhancing Efficiency and Accountability<sup>1</sup>

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### Abstract

The Office of the Controller of the Examinations (OCE) of Tribhuvan University (TU), Nepal, is maintaining academic integrity, ensuring fair assessments. This paper aims to explore the strategies for enhancing the efficiency and accountability of the OCE. An interpretive phenomenological research design has been adopted to gather information from the five former deputy controllers of the OCE were purposively selected as participants. An in-depth interview was conducted with semi-structured interview guidelines. The study found that enhancing transparency and accountability, building institutional capacity, and safeguarding the integrity of assessments, timely examination, and result publication, as well as the timely issuance of original and provisional certificates, transcripts, registration cards, and migration certificates to students, are the major challenges of the OCE TU. Moreover, a strategy for the transformation of the OCE was found, delivering an efficient, timely, secure, and student-friendly examination system, implementing an academic calendar. Conferencing/centre-based answer sheet checking system, digitalization of examination system using OCE apps, OCE automation system for examination services, delegating authority, and empowering regional offices enhance the examination system. Ensuring efficiency and accountability, establishing an innovation and research unit inside the OCE, and implementing the findings would be crucial for transforming the examination controller office.

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### Introduction

Tribhuvan University (TU), Nepal's first and largest university, established in 1959, has been playing a significant role in the development of higher education in the nation. TU safeguard national culture, enhances the quality of higher education, cultivates skilled human capital for national development, and fosters research in arts, sciences, technology, and vocational disciplines (Tribhuvan University, 2024). The university is important because of its size and scope: it has several faculties and institutions that oversee affiliated colleges and constituent campuses, providing access to education in both urban and rural Nepal (Acharya et al., 2022). TU has 62 constituents, 536 communities, and 517 private campuses for higher education (University Grants Commission, 2024). The exam-related tasks and documentation are concerned with the office of the controller of examination, Balkhu (Office of the Controller of Examinations, n.d.).

The Office of the Controller of Examinations (OCE) is the main institution for administering exams, publishing results, issuing transcripts and diplomas, and managing the academic calendar. Moreover, this institution is responsible for maintaining academic integrity and ensuring fair assessments. The OCE intends to deliver an efficient, timely, secure, and student-friendly examination system that promotes the efficient examination system and service consumers' satisfaction, which ensures the implementation of the academic calendar of TU (Office of the Controller of the Examination, n.d.).

The digital transformation of the examination system of OCE significantly impacts the internal efficiency and quality of services (Butler-Henderson & Crawford, 2020). As the universities are moving toward automated examination management platforms, enabling online examination delivery, e-assessment, and remote invigilation, the TU is in the stages of early interventions (Office of the Controller of the Examination, n.d.). As the existing examination system is criticized for its inefficient and delayed service based on the paperwork system. The digitized system could support reducing administrative burdens, preventing fraud, and increasing student accessibility, which supports to improve the examination-related services and enhance the examination-related efficient services of TU (Adhikari, 2023).

Despite the provision of all services through today's system, recent evidence and reports have revealed some significant problems with the examination system. First, the irregularity of the examination schedule takes 6 months or more to complete the relevant academic year. This affects the academic and job plans of the students (Rising Nepal Daily, 2025; The Himalayan, 2017). Second, the long time between the examination and the publication of the results has caused extreme frustration among the students. Similarly, students are forced to wait for a long time for the academic transcript and original certificate. This also hinders their higher education and employment plans (Adhikary, 2024). The gaps further include delayed result publication, a lack of standardized assessment criteria, and minimal use of technology (Timilsena et al., 2024). There are systemic inefficiencies in the examination administration within the OCE, and a comprehensive reengineering is required in the following four problem areas: information technology, administrative processes, decentralization, and human resource management (Pokharel, 2024).

The OCE has been getting improvements in delivering its services. However, problems in the entire examination management remain. Evidence suggests further transformations of this office, such as digital transformation, fixed academic calendars, and systems to enhance administrative accountability, etc. (Adhikari, 2024; Pokhrel, 2024). Therefore, the present study aims to explore strategies for enhancing the efficiency and accountability of reforming the examination system of TU while addressing these gaps.

#### Methods and Materials

This study employed a qualitative research approach with an interpretative phenomenology design. Lived experiences and shared meanings of similar experiences were investigated in an outdoor context. A phenomenological study in a social setting develops knowledge based on people's experiences (Frechette et al., 2020). In-depth interviews (IDI) and informal discussions were conducted with five deputy controllers from the OCE, Balkhu, to explore their experiences about their experiences in the OCE. To collect information, semi-structured IDI guidelines were employed. IDI guidelines were finalized by consulting with the experts. The participants had at least two years of experience as deputy controllers. They were chosen specifically to explore their lived experiences regarding increasing efficiency and accountability for the OCE reformation.

Participants were informed about the study goal and permitted to participate as we obtained informed consent from study participants, keeping their information private, and not utilizing it for any purpose other than the one for which it was obtained (Jameel& Majid, 2018). The study also maintained their anonymity by using pseudonyms P1, P2, P3, P4, and P5. Their real names were not revealed due to ethical concerns. Member checking was applied to maintain the trustworthiness of the information (Korstjens& Moser, 2018). We contacted the subject for interviews in accordance with their informed consent.

We employed a thematic analysis approach to analyze the collected information. The interview responses were captured on an audio recorder and transcribed into English after listening two or three times to authenticate the information received. The transcribed data were coded to obtain the basic themes, which were then further arranged to produce an organized theme. Then, they were developed into the global themes. The information was analyzed linking with the relevant literature and presented thematically.

## **Results and Discussion**

This section deals with the results and discussion based on the information of the participants, which are presented thematically and discussed, linking with relevant literature.

### **Implementing academic calendar**

Conducting examinations and publishing results on time are crucial issues for the effective implementation of the TU academic calendar. Implementation of the academic calendar is one of the areas that is initiated in the recent vision paper of the Vice-Chancellor of TU (Baral, 2024). This vision can be addressed through initiating and providing timely services of administering the examination and publishing the results. The focus is on preparing an operational plan in collaboration with the OCE executive body and stakeholders to implement the academic calendar. Specifically, PI stated:

Specific timelines aligning with the academic calendar (timely registration, call for examination form fill-up, scheduling examinations, conducting examinations, collecting answer papers, checking, scrutinizing, and publishing results) for the implementation of the academic calendar is important.

Delay in examination and publication of results create anxiety, loss of momentum and decrease in motivation among the students. Akiri and Ugborugbo (2008) argue the high degree of correlation between delay publication of results and poor academic

performance particularly in an environment where business studies are offered. This observation leads to the urgency of the prompt distribution of findings since prior feedback is crucial to keep the student morale high. Bostwick et al. (2020) investigate the implications of changing academic schedules in American universities and colleges and underline the need to carefully redesign operations and align them with the test timetable and student services. Although these studies are not directly related to the current scenario, they imply that the specific implementation is crucial to smooth calendar implementation. Additional reasons to consider this point of view are presented by Deleon et al. (2022), who argue that the imbalance between academic schedules and the subsequent delays may reduce the time of instruction and influence the performance of students adversely. According to Beens (2024), exam scheduling is significant because exams that are poorly timed, such as having them during the times of highest student workload, holidays, or planned at the end of the term, are among the causes of poor performance in students. These observations suggest that the timeliness of exams as well as the judicious choice of when to take them are crucial success factors for students.

The statement by the former Vice-Chancellor of TU regarding the introduction of the academic calendar (Baral, 2024) is rather optimistic, but the evidence provided suggests that this issue requires extensive planning of operations. This should be carefully planned with the phases of the academic calendar process- registration, notification, scheduling, grading, and publication of results clearly outlined, and deadlines, responsibilities, and resource allocation properly spelled out. Bostwick et al. (2020) indicated the ineffective inter-departmental communication as one of the factors that complicate delays and, consequently, the introduction of an effective academic calendar. Moreover, P2 suggested "Implementing theme-based months in the OCE, such as months for question setting, examination operation, paper collection and distribution, answer sheet checking, and result publishing enhance the result processing". Similarly, P4 asserted "Coordination and collaboration with stakeholders, i.e., TU authorities, faculties, student bodies, and employee staff, empower them to maintain an examination timeline". The statements highlight that effective planning and collaboration with stakeholders support implementation of the academic calendar.

#### **Accountable and enriched privacy section**

The timely operation of examination and publishing result-related tasks is concerned with the privacy section in OCE. Regarding these issues, P5 stated that "the

staff of this section needs to contribute more time and needs to be dedicated and accountable for the implementation of the academic calendar". In the same vain P 4 asserted " for the accountable and enriched staffs in the section, good incentives and allowances need to be managed. Similarly, subject experts are equally important for the implementation of the calendar". Similarly, P3 stated, "The question setting and moderation, timely paper checking, and scrutinizing are significant; however, the subject experts are not motivated to perform the task in a timely manner due to poor incentives and remuneration". Thus, restructuring the remuneration of subject expert for their specific tasks, such as question setting, moderation, paper checking, and scrutinizing, is essential.

Staff responsibility and proper motivation play crucial role for implementation of academic calendar. The experience of the higher education systems indicates that the workload, the remuneration, and recognition of the examiners are significant factors that contribute to the quality of the assessment processes and their timeliness (Nicol, 2010). Although the respondents of this work recommended the reorganization of allowances to encourage subject matter experts, the experience of other international institutions demonstrates that a combination of incentives and academic tasks leads to better performance in examiners and less procrastination (Bloxham, 2009).

#### **Centre-based answer sheet checking system**

Evaluating answer sheets is an important responsibility of OCE for ensuring timely result publication. Currently, OCE provides answer sheets to subject experts to take home for checking, which has led the issues such as misplaced packets and delays in collection. Regarding these issues, P4 asserted that "the task of establishing an answer sheet checking centre in Kathmandu Valley can be managed across different constituent campuses and supervised by the OCE to reduce answer sheet checking delays and problems with effective delivery."

Centre-based answer sheet checking used internationally to improve reliability and timeliness. Moreover, breaking assessment down into smaller units can reduce bias for quality control, despite the accompanying demands of tight logistics and secure systems (Ofqual, 2014). However, strong processes and careful tracking requires to avoid the emergence of new mistakes.

**Digitalization of examination system**

Digitalization of examination-related tasks and services can reduce the time and workload of OCE staff and save time and money for the students. The following subtheme for the digitalization of the examination system at OCE are discussed.

**Developing OCE applications (Apps)**

Preparing and implementing the OCE Apps accessible on both mobile and computer, featuring different functions such as TU registration card, examination registration, admit cards, mark sheet, migration, and other necessary documents for students, improves efficiency and reduces paperwork and time-consuming processes. Regarding the digitalization process participants P3 stated that "OCE apps needs to develop and implement in coordination with the functional team, including the TU authority, and information technology specialists along with the OCE executives. Using Office Automation System for Examination Services."

TU has been applying an automation system to deliver official letters and documents. Similarly, preparing and providing mark sheets, transcripts, original and provisional certificates, TU registration cards, and examination cards through office automation from their admitted institution is today's urgency in TU. This automation service supports to reduce the burdens of OCE officials, and TU can save huge amounts of money and get rid of the criticism of delayed and inefficient services from OCE. Moreover, automation services can reduce human mistakes and enable students to obtain their marks promptly via a secure online gateway.

The substitution of the core processes within OCE by online solutions, including office automation, e-marking, student portals/applications, is in line with the practice, which has been adopted in similar educational settings. The actual existence of e-assessment and on-screen marking helps in reducing administrative pressures as well as often shortening result turnaround times, but only when there is sufficient IT infrastructure, employees are trained, and workflow processes are sufficiently secure (Mayhew et al., 2022; Pearson & Penna, 2023). Benefits of higher speed and lower rates of manual errors are also supported in case studies of computerized result-processing systems, but these advantages require strong implementation (Newman et al., 2021). Therefore, digitalization is a high-value strategic path of the OCE of TU; nevertheless, it should be resources-sufficient and carefully pilot-tested. In line with this, the digitalization of the examination services in TU is in tandem with trends that have been



observed in other parts of the world where automation systems and examination systems have increased children precision and reduced administrative overheads (Jamil et al., 2012).

### **Authority delegation and empowering regional offices**

Authority delegation and empowering regional offices enhance smooth operation and increased efficiency in the examination system. The OCE Balkhu needs to play the coordinating role to ensure the quality and uniformity of the tasks performed by the regional OCE offices. TU can audit different tasks conducted at the regional offices such as question setting, answer sheet checking and the overall process of the examinations.

Currently, four regional examination centres (regional office Biratnagar, regional office Pokhara, regional office Nepalgunj and regional office Attariya) are functioning where a deputy controller is leading the office with limited resources and staff. The deputy controllers are playing the coordinating role with the OCE Balkhu, Kathmandu. Currently, the regional office is in the process of establishment in Madhesh Province. OCE can decentralize mainly two tasks to the regional offices which are as follows:

### **Preparation for examination**

The major responsibility of the OCE is to ensure timely publication of examination results. Similarly, secure timely and quality question paper setting takes significant role in examination process. According to participant P2 "question paper setting mainly centered with the experts of Kathmandu Valley only. Thus, the OCE office is getting pressure from questions collection and moderation due to the limited experts in the valley." Similarly participant P1 stated "The competent subject experts from out of the valley need to appoint in questions setting and moderation, and then send the prepared questions to OCE office through secured and encrypted format via TU's official email." In the same issue, P4 highlighted that, "unit-wise question paper setting from the subject experts, and finalized by concerned moderators can maintain the security and privacy of questions." The verbatim reveal that the preparation of question papers is centralized in the Kathmandu Valley, exerting pressure on the OCE and constraining inclusivity. Similarly, engaging external experts and utilizing secure official channels to ensure fair and confidential question setting using unit-wise question construction and moderation for security purposes. In conclusion, decentralized and technologically secure strategy needs to implement to improve examination



management's credibility, integrity, and transparency. Moreover, preparation for results participants P3 stated:

The regional office can collect and distribute the answer sheets to the experts available at the regional level for the evaluation and also scrutinize the answer sheets from the same regional level. The examinees can send marks through a secured and encrypted format via TU's official email. For the effective implementation of the plan, authority needs to be delegated to the regional deputy controllers including the provisions of providing remuneration to the experts.

The statement reveals that the authority delegation of OCE amplifies the preparation of examination of results. The decentralization enhances responsiveness and collective accountability within educational frameworks (Hamal, 2020). Effective implementation necessitates consistent evaluation criteria and strong digital security measures.

### **Ensuring efficiency and accountability**

Enhancing transparency and accountability within the examination system is paramount for quality services. The following measures derived from the information from the participants for the transformation of the examination system of OCE are discussed.

### **Access to information and grievance redressal mechanism**

Right to information to all the students and address the complaints of the students regarding the examination need to be focused. Concerning this issue, participants P4 stated that establish a well-defined, technology-enabled system where students can submit grievances related to examinations and get timely responses." The statements emphasized right to information and timely responses to the demands of students and concerned stakeholder. Facilitating access to precise and timely information empowers students to make informed academic choices and assists stakeholders in smoothly navigating institutional procedures. Prompt responses foster accountability, cultivate confidence, and improve openness inside the institution. Emphasizing information rights and effective communication enhances institutional efficacy and stakeholder trust.

### **Audit of examination processes**

Conducting regular audits of all examination-related activities, focusing on adherence to timelines, accuracy in grading, and the integrity of question paper handling to enhance the quality of the examination are crucial. To effectively implement

technological and procedural reforms, the capacity of staff and other stakeholders needs to be strengthened. Regarding the examining auditing practices P4 asserted that "auditing process of examination is essential to ensure transparency, equity, and accountability in educational evaluation systems. It assists in detecting anomalies, confirming adherence to specified criteria, and augmenting the reliability of assessment results". In the same vein P5 stated that "systematic auditing systems allow educational authorities to oversee the reliability and validity of assessment procedures, therefore preserving public confidence in the system." Similarly, P2 argue that "regular audits function as a preventive measure against malpractice, bias, and administrative errors that may compromise the integrity of examinations." The statement shows that auditing the examination process is crucial for the enhancement of the examination.

Furthermore, audits facilitate ongoing enhancement by assessing the efficacy of operational processes, including question formulation, answer sheet assessment, and result dissemination. Romanowski et al. (2022) assert that auditing enables feedback mechanisms for the enhancement of policies and the development of institutional and local capacities. In conclusion, the auditing process ensures the efficient utilization of resources and the maintenance of rigorous and transparent accountability procedures. Audits enhance the quality assurance framework and foster a culture of ethical responsibility and evidence-based decision-making in educational governance.

#### **Executing the capacity enhancement program**

Empowering concerned personnel of OCE and the subject experts through short-term training and workshops will be beneficial. To enhance the capacity of the OCE employee staff and faculties, it is necessary to provide training to keep them updated and upgrade their abilities. Concerning the capacity enhancement participants P3 stated "providing authority to right man in the right place motivates the personnel. More specifically, coordination, collaboration, and modern trends in the examination system are needed to inform all the personnel of the OCE." Similarly, regular workshops on digital literacy and examination management tools for all personnel involved in the examination process foster innovation and preparation for the future digital age (Tribhuvan University Planning Division, 2023). TU can collaborate with national and international educational institutions to share knowledge and best practices and collaborate with different organizations to bring advanced tools to examination systems.

**Hotline services**

Initiating a hotline service to respond to exam-related concerns and students' difficulties could be an effective strategy. Participants P2 stated "the hotline needs to be operated by competent staff members who can deal with a broad variety of issues, from test scheduling to result dissemination. To ensure immediate and accurate responses, there must be a defined system for directing difficult requests to appropriate departments." Furthermore, keeping constant operation hours and marketing the hotline via any means (email, social media, and university websites) will increase its utilization.

To improve its efficiency, the hotline need to implement a computerized monitoring system to register and monitor call response, guaranteeing responsibility and following up on unsolved concerns (Lin et al., 2000).

**Establishing innovation and research unit**

Establishing an innovation and research unit inside the OCE is crucial for updating and improving examination procedures. This unit investigates and applies modern techniques to promote examination accuracy, efficiency, and fairness. Regarding the research unit P4 stated "lacking research unit issues of OCE are not address well. Thus, timely identification of issues and their effective implementation research is essential." In the same vain P1asserted that "research is essential for the developments of digital assessment technologies, automated grading systems, and secure online testing platforms to solve issues such as examination fraud and logistical inefficiencies." By promoting a research-driven approach, the unit ensures the examination systems to remain adaptive and relevant, serving the changing requirements of students, faculties, and institutions to enhance the integrity of the examination process.

Reformation of OCE agenda includes decentralization, better accountability, capacity enhancement of staff, student support systems, and adding digital innovation. Global experience shows that devolution of authority to regional offices can improve efficiency and responsiveness in the institutions of higher education. Thus research unit needs to be established for the exploration of issues and strategy for immediate implication. However, the efficacy of this research unit requires adequate resources, extensive training and effective quality assurance systems (Matete, 2022; Romanowski, 2022).Staff professional-development program, long-term training and digital-literacy efforts enhance the institutional readiness for technology-based exams and reduce time wastage due to procedures (Redecker, 2017; Bates, 2019).

Finally, the establishment of an innovation and research unit at the Office of Examination Coordination (OCE) is aligned with evidence of the benefit of institutionalizing systematic inquiry and the adoption of digital assessment technologies to increase fairness, integrity, and flexibility of examination systems in the face of problems like mass testing and fraud (Nguyen et al., 2021).

### **Conclusion**

The current study reveals the need to undertake a holistic reform of the exam system in TU in anticipation of the immediate adoption of an academic calendar, accountability institutionalization, digitalization, and decentralization. Motivation of personnel, the implementation of center-based marking, technology-based approaches, and formation of regional administration can promote efficiency, transparency, and student satisfaction. The international experience supports the fact that such reforms should have the best effectiveness when there are sufficient resources, effective coordination, and strict accountability mechanisms. Overall, the strategic transformation of the OCE relies on the balanced relationship between decentralization and centralized control, empowerment of employees involved through systematic capacity-building efforts, and on innovative practices that guarantee equity, timeliness, and responsiveness in the examination system.

This study offers the improvement strategies of the OCE through experienced experts; however, there are some limitations. First, this study only included a small number of participants from the OCE of TU and experts who have been involved at the office before. Others, such as question setters, answer sheet examiners, and officials, etc., were not included. Therefore, the findings of this study may not be generalizable to other universities across Nepal. In particular, the information was collected through subjective experiences of the authorities. Thus insights may be influenced by bias, professional loyalty, or selective disclosure. This may have limited the diversity of perspectives and critical insights.

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**Authorship contribution statement:** Conception of the study, data collection, design of the study, analysis of data, interpretation of data, drafting. DS: interpretation of data, discussion, conclusion, and revised the manuscript critically, SPK. Both authors approved the final version of the manuscript.

### References

- Acharya, M., Acharya, K. P., & Gyawali, K. (2022). Higher education status in Nepal: Possibilities and prospects. *The Educator Journal*, 10(1), 105–118. <https://doi.org/10.3126/tej.v10i1.46733>
- Adhikari, T. R. (2023). *Urgent need for reform in the examination system of Tribhuvan University: A concept paper*. *Tribhuvan Journal of Social Sciences and Service Research*, 1(1), 82–90. <https://www.tjsssr.com/index.php/tjsssr/article/view/146>
- Adhikary, R. P. (2024). Urgent need for reform in the examination system of Tribhuvan University. *Tribhuvan Journal of Social Science and Scientific Research*, 1(1), 1–10. <https://tjsssr.com/index.php/tjsssr/article/view/146>
- Akiri, A. S., & Ugborugbo, N. C. (2008). *Impact of timely computation and release of results on academic performance of students of Business Education Department*. Project Research. [https://www.grossarchive.com/project/education/12733-timely-release-of-result-and-academic-performance-of-student-in-business-education#google\\_vignette](https://www.grossarchive.com/project/education/12733-timely-release-of-result-and-academic-performance-of-student-in-business-education#google_vignette)
- Baral, K. J. (2024). *Vision paper for Tribhuvan University operation and management* <https://tu.edu.np>. Retrieved 13 September 2024, from <https://tusc.tu.edu.np/downloads>
- Baral, K. J. (2024, February 23). Prof. Dr. Keshar Jung Baral Shares Vision for Tribhuvan University's Future. *Edusanjal*. <https://edusanjal.com/watch/prof-dr-keshar-jung-baral-shares-vision-for-tribhuvan-universitys-future/>
- Bates, A. W. (2019). *Teaching in a digital age: Guidelines for designing teaching and learning*. Tony Bates Associates Ltd. <https://pressbooks.bccampus.ca/teachinginadigitalagev3m/>
- Beens, P.V. (2024, July 16). The influence of exam timing on academic performance. *Business Economics*. <http://hdl.handle.net/2105/72774>
- Bloxham, S. (2009). Marking and moderation in the UK: False assumptions and wasted resources. *Assessment & Evaluation in Higher Education*, 34(2), 209–220. <https://doi.org/10.1080/02602930801955978>

Full text can be downloaded: <https://www.nepjol.info/index.php/craiaj> & <http://www.craiaj.info/>

- Bostwick, V., Fischer, S., & Lang, M. (2020). Semesters or quarters? The effect of the academic calendar on postsecondary student outcomes. *American Economic Journal: Economic Policy*, 14(1), 40–80. <https://www.aeaweb.org/articles?id=10.1257/pol.20190589>
- Butler-Henderson, K., & Crawford, J. (2020). A systematic review of online examinations: A pedagogical innovation for scalable authentication and integrity. *Computers & Education*, 159(1), 1-12. <https://doi.org/https://doi.org/10.1016/j.compedu.2020.104024>
- Deleon, E., Varela, D., & Jones, D. (2022). Impact of school calendar on academic performance: A comparative study of the year-round and traditional calendars. *Research in Educational Policy and Management*, 4(1). 65-79. 10.46303/repam.2022.11.
- education in Nepal: Present status and reform need. *Journal of Arts Humanities & Social Sciences*, 2(4), 349-252. 10.5281/zenodo.14568002
- Fisher, D. P., Brotto, G., Lim, I., & Southam, C. (2025). The impact of timely formative feedback on university student motivation. *Assessment & Evaluation in Higher Education*, 50(4), 622–631. <https://doi.org/10.1080/02602938.2025.2449891>
- Frechette, J., Bitzas, V., Aubry, M., Kilpatrick, K., & Lavoie-Tremblay, M. (2020). Capturing lived experience: Methodological considerations for interpretive phenomenological inquiry. *International Journal of Qualitative Methods*, 19(2), 1-12. <https://doi.org/10.1177/1609406920907254>
- Hamal, S. (2020). Decentralization of education in Nepal: A rein in a horse nose. *Social Inquiry: Journal of Social Science Research*, 2(2), 194-215. <https://doi.org/10.3126/sijssr.v2i2.3306>
- Himalayan News Service (2017, July4). Questions raised over TU examinations office. *The Himalayan*. <https://thehimalayantimes.com/kathmandu/questions-raised-over-tribhuvan-university-examinations-office>
- Jameel, B., & Majid, U. (2018). Research fundamentals: data collection, data analysis, and ethics. *Undergraduate Research in Natural and Clinical Science and Technology Journal*, 2(1), 1-8. <https://doi.org/doi.org/10.26685/urncst.39>
- Jamil, M., Tariq, R., & Shami, P. A. (2012). Computer-based vs paper-based examinations: Perceptions of university teachers. *The Turkish Online Journal of Educational Technology*, 11(1), 371-381. <https://eric.ed.gov/?id=EJ989302>

- Joshi, K. (2025, February 9). Ordeals of TU students: Examination irregularities and delays. *Rising Nepal Daily*. <https://risingnepaldaily.com/news/56870>
- Journal of Social Science Research*, 2(2), 194-215. <https://doi.org/10.3126/sijssr.v2i2.33060>
- Korstjens, I., & Moser, A. (2018). Series: Practical guidance to qualitative research. Part 4: Trustworthiness and publishing. *European Journal of General Practice*, 24(1), 120-124. <https://doi.org/10.1080/13814788.2017.1375092>
- Lin, C., Lai, K., & Hung, S. (2000). Development of a workforce management system for a customer hotline service. *Computers & Operations Research*, 27(10), 987-1004. [https://doi.org/10.1016/S0305-0548\(99\)00072-6](https://doi.org/10.1016/S0305-0548(99)00072-6)
- Lin, C., & Wu, S., & Tsai, R. (2005). Integrating perceived playfulness into expectation-confirmation model for web portal context. *Information & Management*. 42(5), 683-693. 10.1016/j.im.2004.04.003.
- Matete, Rose. (2022). Forms of decentralization and their implications for educational accountability in Tanzania. *Heliyon*. 8(5), 1-11. <https://doi.org/10.1016/j.heliyon.2022.e09436>
- Mayhew E., Holmes V., Davies M., & Dimitriadi, Y. (2022). Online submission, feedback and grading of assessment: what do academic staff really think? *Research in Learning Technology*, 30 (1), 1-14. <https://doi.org/10.25304/rlt.v30.2458>
- Newman, M., Kwan, I., Schucan, B., & K; Hoo, H.T. (2021). *The impact of feedback on student attainment: A systematic review*. Education Endowment Foundation: London, UK. <https://discovery.ucl.ac.uk/id/eprint/10138571/>
- Nguyen, T., Netto, C. L., Wilkins, J. F., Broker, P., Vargas, E. E., Sealfon, C. D., Puthipiroj, P., Li, K. S., Bowler, J. E., Hinson, H. R., Pujar, M., & Stein, G. M. (2021). Insights into students' experiences and perceptions of remote learning methods: From the COVID-19 pandemic to best practice for the future. *Frontiers in Education*, 6,(1). 1-9. <https://doi.org/10.3389/educ.2021.647986>
- Nicol, D. (2010). From monologue to dialogue: improving written feedback processes in mass higher education. *Assessment & Evaluation in Higher Education*, 35(5), 501-517. <https://doi.org/10.1080/02602931003786559>
- Office of the Controller of Examination, Tribhuvan University, Balkhu, Kathmandu. (n.d.). *Overview and services*. Tribhuvan University. Retrieved September 20,



- 2025, from <https://edusanjal.com/organization/office-of-the-controller-of-examinations-tu/>
- Office of the Controller of the Examination, (n.d). About us. *Tribhuvan University*. Retrieved Sept, 20, 2025, <https://exam.tu.edu.np/pages/about-us-2402>
- Ofqual. (2014, February 14). *Review of literature on item-level marking in exams*. GOV.UK. <https://www.gov.uk/government/publications/ofqual-literature-review-of-item-level-marking-in-exams>
- Pearson, C., & Penna, N. (2022). Automated marking of longer computational questions in engineering subjects. *Assessment & Evaluation in Higher Education*, 48(7), 915–925. <https://doi.org/10.1080/02602938.2022.2144801>
- Pokhrel, R. K. (2024). Enhancing efficiency through re-engineering of the examination system at Tribhuvan University. *Tribhuvan University Journal*, 39(2), 233–246. <https://doi.org/10.3126/tuj.v39i2.73007>
- Redecker, C. (2017). *European framework for the digital competence of educators* (Punie, Y., Ed.). Publications Office of the European Union. <https://doi.org/10.2760/159770>
- Romanowski, M. H., & Du, X. (2022). Education transferring and decentralized reforms: The case of Qatar. *Prospects*, 52(3), 285-298. <https://doi.org/10.1007/s11125-020-09478-x>
- Timilsena, N. P., Devkota, K. M., & Khanal, G. P. (2024). Examination system of higher education in Nepal: Present status and reform need. *Journal of Arts Humanities & Social Sciences*, 2(4), 349-252. 10.5281/zenodo.14568002
- Tribhuvan University (2024). *Implementation of Tribhuvan University vision 2030*. Tribhuvan University. 2030. [https://portal.tu.edu.np/downloads/2025\\_03\\_25\\_20\\_54\\_47.pdf](https://portal.tu.edu.np/downloads/2025_03_25_20_54_47.pdf)
- Tribhuvan University Planning Division. (2023). *Tribhuvan University digitalization strategy plan, 2023*. Tribhuvan University. [https://portal.tu.edu.np/downloads/APIDownloadFile1\\_2023\\_09\\_18\\_13\\_52\\_02.pdf](https://portal.tu.edu.np/downloads/APIDownloadFile1_2023_09_18_13_52_02.pdf)
- University Grants Commission. (2024). *Annual report 2023/024. University Grants Commission, Nepal*. <https://ugcnepal.edu.np>