Teacher Education and Teacher Selection Courses: Resolving Compatibility Issues of Tribhuvan University and Teacher Service Commission

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ABSTRACT
This study evaluates the alignment of teacher education (TE) programs of Tribhuvan University (TU) with the teacher selection courses of Teacher Service Commission (TSC), using a comparative, exploratory-cum-explanatory research design. The data collection methods included content analysis, focus groups, and interviews. The data analysis method includes interpreted phenomenological analysis (IPA). The results showed a lack of course compatibility, with only 9% of the teacher license (TL) and teacher selection (TS) courses from the Teacher Service Commission (TSC) and Tribhuvan University (TU) being comparable. The study also questions the relevance of current TE, TL, and TS programs, particularly in incorporating professional skills and TE innovations for classroom instruction. To improve TE, respondents proposed strategies such as introducing digital pedagogy, combining pedagogical and general education subjects, updating subject-specific content, and adding practical skills for responsive teaching. The study concluded that closing the theory-practice gap in teacher education is challenging and calls for various changes, institutional cooperation, and teamwork. Similarly, the
policymaking and implementing agencies of education are suggested to consider course reviews, required training for teaching professionals, sufficient internships for pre-service teachers, the use of TE's innovations and professional skills, improvements to the teacher selection process, and collaboration among education stakeholders.

KEYWORDS: Compatibility, teacher education, pre-service teachers, teacher selection process, professional skills

INTRODUCTION

Teachers are an essential component of the educational process. They must receive training in the contemporary educational environment in order to transform otherwise they would be forced to impart yesterday's education to the children of tomorrow. In this case, Aggarwal (2009) argues that the term ‘training’ is outdated and has been replaced by the term ‘education’ or the term ‘teacher education’ that has taken the place of ‘teacher training’. The ‘trainee’ or ‘pupil teacher’ has been replaced by ‘student-teacher’. Therefore, ‘teaching practice’ has been substituted by ‘internship.’ According to Hansen (2008), a core purpose of teacher education is to cultivate an open mind toward multiple views of educational purposes.

The quality of a nation depends upon the quality of citizen. The quality of citizen depends upon the quality of education and the quality of education depends more upon the quality of their teacher. Thus, a good education for teachers is a significant investment (Sagar, 2019). Thus, teacher education is all about a teacher’s work. The function of teacher education is to produce good teachers.

The history of teacher education in Nepal dates back to the establishment of the Basic Education Teacher Training Centre in Kathmandu in 1948 that aimed at training primary school teachers (Awasthi, 2010). Later, the College of Education (COE) started teacher education and trainings since 1956. More specifically, the National Education System Plan (NESP)-1971 endorsed a mandatory teacher training policy for all school teachers. However, the government could not resist the pressure of teacher unions and decided to distribute the license to the working teachers without conducting any examination. As a result, in 2006, the government had made 50% temporary teachers of school level permanent without any requirement of rigorous training and education ordinance as it committed to make teacher education permanent for remaining 50% regardless of their training and licensing (Wagle, 2007). In Table 1 below, TSC’s teacher’s selection exam results of 2023 has been presented to show that the courses for teacher education and teacher selection offered by TU and TSC have no compatibility.

Table 1

<table>
<thead>
<tr>
<th>Level</th>
<th>Demand</th>
<th>Supply</th>
<th>Gap</th>
<th>Gap %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>13,297</td>
<td>10,353</td>
<td>2,944</td>
<td>22.14</td>
</tr>
<tr>
<td>Lower Secondary</td>
<td>2,606</td>
<td>1,959</td>
<td>647</td>
<td>24.82</td>
</tr>
<tr>
<td>Secondary</td>
<td>1,552</td>
<td>1,182</td>
<td>370</td>
<td>23.84</td>
</tr>
<tr>
<td>Total =</td>
<td>17,455</td>
<td>13,494</td>
<td>3961</td>
<td>22.69</td>
</tr>
</tbody>
</table>

Note. Result Published on 2079/12/3 BS
Source: Kaini (2023)
While the primary objective of the Faculty of Education (FOE) at Tribhuvan University (TU) is to train teachers, develop teacher educators, nurture education specialists, and cultivate education managers and administrators for the nation. For instance, the results from FOE (TU) indicate a concerning performance, as evidenced in Table 1. These data reveal that the supply of qualified individuals falls short of the demand, with an average gap of 22.69% evident in recent teacher selection examinations across all three levels.

Thus, Table 1 illustrates the deprived quality of teacher education (TE) in Nepal. There seem to be notable shortcomings in both the theoretical and practical aspects of teacher education. In light of this situation, this study seeks to examine the primary deficiencies in pre-service teacher training programs offered by universities, specifically focusing on students’ practice teaching and teacher education courses. Additionally, it aims to identify the essential teacher education courses that should be incorporated to better prepare aspiring teachers for the demands of the twenty-first century.

The significant course differences and the high failure rate on the teacher license and selection exam, as indicated in Table 1, have a direct impact on the caliber of teachers. Thus far, this issue has not been of concern to TSC, the government, or TU. Because of this, this issue has grown to be one of Nepal's most pressing ones. The majority of pre-service teacher education programs in Nepal provide 1.5 months of practice teaching; nevertheless, this does not seem to be enough time to acquire the professional skills necessary to become an effective teacher. However, traditional teacher education may need to be reevaluated in light of the significant failure rates in the most recent teacher license and selection exams. Considering this, the goal of this research is to assess the applicability and alignment of courses offered by TU's teacher education programs. The problem statement for this inquiry seeks to provide an answer to this primary query. Thus, this study aims to explore and assess the compatibility (similarities) of the teacher license and selection course of TSC with the teacher education course of TU.

LITERATURE REVIEW

The previous studies include teacher researches that are published at national and international level. Teacher research is an inquiry that is intentional, systematic, public, voluntary, ethical, and contextual. Teachers' action research is on-going professional development for teachers, by teachers rather than being done to teachers by outside 'experts' (Pant, 2015).

Educational leaders should consider a teacher's career cycle phase when providing professional development and growth opportunities (Lynn, 2009). Simultaneously, teacher education programs should offer opportunities for college students to engage in cooperative or discourse groups, enabling them to analyze their experiences as a guide for their future teaching endeavors (Schultz, 2009).

As emphasized by Wagle (2007), teachers serve as the foundation of education, playing a crucial role in fostering the professional development of their peers. This is a fundamental aspect in every country's educational landscape. However, various factors may impede the smooth operation of teacher professional development initiatives. Similarly, Sharma (2007) contends that one of the primary reasons for the
underperformance of Nepali schools is the presence of inadequately trained and ill-prepared teachers.

To ensure the provision of quality education and to sustain economic growth and development, it is imperative to maintain the morale of teachers and safeguard the education infrastructure. Research by Mackenzie (2007) in Australia highlights the challenges faced by the teaching profession, such as a decreasing attractiveness in terms of financial rewards and limited promotional opportunities. Consequently, teacher morale in Australia has dwindled and is closely linked to the declining status of the profession.

A study conducted by Manna and Tattwasarananda (2018) examined the teacher education landscape in SAARC countries, including India, Bangladesh, Sri Lanka, and Pakistan. The study highlighted strategic efforts in India and Sri Lanka to revamp their secondary teacher education programs, aligning them with contemporary standards to address unique challenges and global developments. Meanwhile, Pakistan initiated a comprehensive restructuring of its teacher education institutions, leading to a significant transformation of curricula and instructional approaches. Additionally, Bangladesh adopted modern technologies and methodologies, adapting them to available resources, thereby enhancing teacher education in training colleges.

The evolution of teacher education in the SAARC region reflects the need to meet modern educational demands. Manna and Tattwasarananda (2018) observed that India and Sri Lanka modernized the objectives of their secondary teacher education programs to align with global trends. Pakistan restructured teacher education institutions, reshaping curriculum and methodologies. Bangladesh incorporated technology within its means to promote teacher education.

Research in teaching emphasizes the link between content and the teaching process, involving the continual restructuring of subject knowledge (Cochran, De Ruiter, & King, 1993, as cited in Sam Hausfather, 2009). Teachers' impact on student achievement transcends backgrounds and family environments (Schmid, 2018). Educational technology can enhance teacher education quality (Pradhan, 2011). The American Association of Colleges of Teacher Education advocates for change and innovation in teacher education (Gangone et al., 2021). An agency within the teaching profession plays a pivotal role in driving transformative change (Smith et al., 2022).

The trends in teacher education reflect a notable paradigm shift, encompassing categories like replication to reflection, academic to efficiency, competency-based to demand-based, and environment-based to inquiry-based, among others. Effective training should prioritize student learning over teacher teaching. The historical evolution, global trends, challenges, and transformative potential of teacher education emphasize the need for continuous improvements and innovations in teacher training programs worldwide. High-quality teacher education is vital for effective internships, improved student learning outcomes, and societal transformation.

The strength of teacher research is the development of a better understanding of classroom practice in ways that are specific and local (Pant, 2015). As a part of teacher research, teacher appraisal refers to the evaluation of individual teachers to judge their performance and/or provide feedback to help improve their practice (OECD, 2013). According to the OECD (2013), among the 28 countries, different countries use different approaches to teacher appraisal such as completion of probation (13 countries), and
regular school-based appraisal (17 countries). In addition, as part of performance management, teacher registration or renewal (five countries), appraisal for promotion (five countries), and three countries use reward schemes.

The implementation of teacher-appraisal systems across schools depends very much on the governance context in each country, particularly on the level of decentralization and school autonomy. Registration is a requirement for teachers to teach in Australian schools, regardless of the school sector. In Korea’s Teacher Appraisal for Professional Development program, once the appraisal is completed, evaluation sheets are collected and drafted into a final report. Finland’s Ministry of Education and Culture has no role in teacher appraisal. Similarly, teacher appraisal in Sweden is not regulated by law, and there are no formal procedures for evaluating the performance of fully qualified teachers. Likewise, Singapore encourages teacher development of its performance-management system called enhanced performance management system (EPMS). The EPMS is competency-based and defines the knowledge, skills, and professional characteristics appropriate for each track. It is developmental in nature and supports teacher improvement and performance (OECD, 2013). The teacher appraisal is equally important as teacher education for the quality of education. There are different modalities of teacher appraisal in different countries. This diversity reflects the various approaches used to assess and support teachers, ultimately contributing to the enhancement of classroom practice and educational outcomes on a local and global scale.

To sum up, the aforementioned studies underscore the importance of teacher education for professional development, its impact on children's education and potential for social transformation. However, teacher education in Nepal falls short of the desired standards. Consequently, there is a pressing need to evaluate the current teacher training programs and their relevance.

**RESEARCH METHODOLOGY**

The study utilized an interpretive phenomenological analysis (IPA) to examine the constructivist nature of knowledge. It focused on understanding the participants' values and used Pokhara as its cosmology. The participants and interviewees were located at various campuses, including Prithvi Narayan Campus, Kalika Multiple Campus, Education Development and Coordination Unit (EDCU), and Education Training Center (ETC). The data were collected through interviews, content analysis, and deliberate sampling, with techniques like content analysis frameworks, interview schedules, and focus group discussions (FGD). As part of the qualitative inquiry, the sample size was 30 and was determined purposefully. The study used pseudonyms, data triangulation, and participants' consent to ensure credibility. The rigorous qualitative methodology integrated ethical issues with the IPA principles to provide an in-depth examination of research participants' experiences.

**RESULTS AND DISCUSSION**

The results and discussion section encompasses the examination of data, the understanding and explanation of the outcomes, and a comprehensive analytical conversation. Professionals in the education sector, both teaching and non-teaching, made up the interview participants and responders. The participants in the FGD included students who had already taken the TSC licensing and selection examinations as well as
those who intended to take exams. The data analysis is grounded in the real-world information gathered during the study. It uses paraphrasing for textual data.

Assessing the Compatibility of Teacher Education Course

People who want to become teachers in Nepal often go through specific teacher education programs. These courses are made to give aspiring teachers the pedagogical skills and knowledge that they need to educate pupils successfully. The universities, colleges for teacher preparation, and organizations that focus on education provide programs in teacher education. To fulfil the demands of the nation, TU alone yearly generates 79% of the teacher educators needed (CEHRD, 2020). However, it has recently been claimed that TU is an industry that creates unemployed people because it allegedly produces untrained and unqualified instructors. The TSC (2022) results (Tables 1) also strengthen this fact, although there are many direct and indirect causes that may affect the results. In this context, to know whether such effects are true or not to assess the compatibility of TE of TU and the teacher license course of TSC, and to explore the relevancy of TE of TU, this research was carried out.

Teacher Education/Preparation Course

This study examines TU’s teacher education course of B.Ed. level through document analysis, interview, and FGD. It analyses core subjects namely A, B, C, and D (Ed. 412, 421, 431 & 442), that are taught in the first, second, third, and fourth years respectively. Besides, it also analyses pedagogy, internship, or practicum that are undertaken as the teacher's preparation course through interviews and FGD. During the FGD, participants shared their views assessing the course compatibility:

As we progressed through our education journey, starting from grade 9/10 and continuing through B.Ed. and M.Ed., we found that approximately 40% of the content was useful for TL and TS exams, particularly in the areas of psychology and education. Part II of the curriculum had some similarities, but we noticed that fundamental rights (from Part V), information and communication technology (ICT from Part IV), intelligence quotient (IQ from Part III), and general knowledge (GK from Part I) were not included in the teacher preparation course for B.Ed. In summary, the current teacher preparation curriculum offered by TSC covers some aspects, but it lacks in-depth coverage of the topics we’ve encountered along our educational journey.

Apart from teaching skills (e.g. classroom management skills, preparation and use of instructional materials and communication skills), a teacher needs to know pedagogical theory and knowledge (e.g. philosophical, sociological and psychological foundations of education), and professional skills. These subjects are common subjects for all graduates who pursue secondary level teacher's jobs completing the bachelor's degree in education. These core subjects taught in B.Ed. program are the foundational courses for education discipline; hence, these subjects could differentiate education from the other disciplines. During an interview, a question asked to analyze B.Ed. course to the head of EDCU, he replied:

At present, the courses of teacher preparation namely, foundations of education, educational psychology, curriculum and evaluation seems to guide students, but now as we are moving in the twenty-first century, today's students try to run
Towards achieving new knowledge and skills, the wand to acquire new technologies, and try to learn by connecting technology, but courses built for teacher preparation don't include such things, that's the main problem. Examining the application of TE course of B.Ed., a professor of TE named Ananda (Pseudo name) says, "It has provided a lot of pedagogical and content knowledge and skills that are helpful in day-to-day classroom instructions. It has also given me immense opportunity to be acquainted with philosophical, sociological, and pedagogical bases of instruction and instructional evaluation."

To sum up, the analysis indicates that while some content is relevant for teacher licensure exams, critical topics such as fundamental rights, information and communication technology, intelligence quotient, and general knowledge are notably absent from the teacher preparation curriculum. These subjects are vital for graduates pursuing secondary-level teaching roles and serve as distinguishing factors for the education discipline. Furthermore, the study reveals that the current curriculum lacks alignment with the needs of twenty-first century students, who seek to acquire new knowledge and skills through technology. Despite these challenges, the teacher education program has provided valuable pedagogical and content knowledge, enhancing classroom instruction and fostering a deeper understanding of the philosophical, sociological, and pedagogical foundations of teaching and instructional evaluation. This research underscores the need for a more updated and responsive teacher education curriculum to better prepare educators for the evolving educational landscape and the demands of modern students.

Secondary Level License Course (SLLC)

Obtaining a teaching license in Nepal is an important step for individuals who wish to work as teachers in formal educational settings. The teaching license is issued by the TSC of Nepal. The license signifies that the teacher has met certain educational and professional criteria required to teach in schools. Therefore, teacher education programs offered by universities in Nepal play a crucial role in preparing individuals for obtaining a teaching license. These programs are designed to equip aspiring teachers with the necessary knowledge, skills, and competencies to become effective teachers or educators in various educational settings.

Thus, as in other universities, TU's teacher education programs also contribute to the process of obtaining a teaching license in Nepal. Mainly, it provides following services to the prospective teachers:

Academic Preparation and Professional Skills. Teacher education programs offered by universities provide candidates with a solid academic foundation in pedagogical theories, educational psychology, curriculum development, assessment methods, and subject-specific content knowledge. This academic preparation ensures that prospective teachers are well-versed in the principles of effective teaching and learning. In the universities, the teacher education programs focus on both theoretical and practical teaching skills and strategies. It has teaching methods as a separate subject to each specialization along with on campus micro internship and an orientation class. For candidates aspiring to teach specific subjects, the teacher education programs help deepen their subject knowledge and expertise.
In addition to the knowledge of subject matters, TE of TU also provide opportunities for professional skills development while TSC seldom executes any mechanism to test such skills. Effective classroom management is crucial for creating a conducive learning atmosphere. Therefore, the teacher education programs emphasize classroom management techniques, helping candidates develop strategies to maintain a positive and productive classroom environment. Classroom management skills like seat arrangement, classroom environment, instructional management, and teachers’ behavior are taught in the campus. Prospective teachers learn how to design assessments, evaluate student performance, and use assessment data to guide instructional decisions. This skill is vital for tracking student progress and adapting teaching methods accordingly. For this purpose, they have to do peer evaluation and prepare a set of test papers conducting item analysis. They also learn how to use specification grid to make questions during exams.

This is particularly important for secondary education teachers who teach specialized subjects like educational management, mathematics, science, economics, language, and social studies. In this regard, Professor Ananda says, "More focus has been given to educational plans but educational management aspect has not been dually focused in it." Hence, along with the adequate content knowledge, prospective teachers need some professional skills like how to plan lessons, deliver effective classroom instruction, manage diverse classrooms, motivation, evaluation, and address the individual needs of students.

**Internship.** The internships are a crucial part of the university's TE program. A practical training is essential for success in the real-world teaching environments. The teacher education programs also include one and half month's long practicum or teaching internship components. These practical experiences allow aspiring teachers to apply their knowledge and skills in real classrooms under the guidance of experienced internal supervisor and mentor teachers. This hands-on experience is invaluable for building confidence and refining teaching abilities. Assessing the university's present practice teaching Professor Ananda says, "Course-wise, it is ok but implementation part of curriculum is not satisfactory. The Deans Office at the Faculty of Education and the departments at each institution should work in collaboration to ensure the effective implementation of curriculum."

Besides the universities' TE, the coaching centers as shadow schooling also play vital roles in TP providing candidates with appropriate guidance and preparation for the licensure exams required to obtain a teaching license. This may include review sessions, practice exams e.g. mock tests and technical assistance. In this context, former coaching class teacher named Jiblal says, "The university's content is inadequate in giving information related to acts, TPD, quality education, governance, and leadership related contents are not included. The students who prepare for TSC's exams need to go private coaching centers to gain the missing information."

The content analysis shows that only 9% course of university's TE is applicable to attend the TSC's exams. This bitter situation directs to make a compatible TE course for attending the TSC's exams. They also emphasize the ethical and professional responsibilities of educators through teaching legal aspects e.g. constitutional provisions, education act and regulations. Mainly, this includes understanding educational policies, legal considerations, and ethical standards related to teaching and student welfare.
Curricular Framework and Structure. Analyzing the overall structure and organization of subjects/modules in both courses in the TE of TU, four core subjects of 100 full marks each and 35 pass marks are taught. Besides these foundational courses, there is a subject specific method of teaching subject and a compulsory students' teaching practice (internship) as practical session. The secondary level teaching license course comprises of an hour paper of 100 marks with 50 questions of equal marks and pass marks 50. Here, this study first assesses the compatibility (similarities) of TSC's teaching license course of secondary level with the TE core courses of B.Ed. at TU. The table below presents the result of content analysis between the TE of B.Ed. at TU and the secondary level teacher license course.

Table 2
Similarities Index of Core Curriculum of Teacher Education (CCTE), B.Ed. of TU with TSC's Secondary Level Teacher License Course (SLTLC)

<table>
<thead>
<tr>
<th>Contents</th>
<th>Part I General Education (40%)</th>
<th>Part II Educational Management &amp; Teaching Process (60%)</th>
<th>Overall Similarities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Similarities</td>
<td>Similarities of BED Core Subjects (%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>1. National education system of Nepal</td>
<td>10</td>
<td>30</td>
<td>0</td>
</tr>
<tr>
<td>2. New thinking/trends in education</td>
<td>25</td>
<td>86</td>
<td>14</td>
</tr>
<tr>
<td>3. Learning &amp; child psychology</td>
<td>25</td>
<td>0</td>
<td>84</td>
</tr>
<tr>
<td>4. School community relations</td>
<td>6</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>5. Professional efficiency development of teachers</td>
<td>6</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>6. Quality education</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Part I Total</td>
<td>12</td>
<td>28</td>
<td>16</td>
</tr>
<tr>
<td>7. Educational governance &amp; leadership</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8. Classroom management &amp; instructional planning</td>
<td>11</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9. Curriculum &amp; student support system</td>
<td>12.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10. Teaching methods &amp; educational process</td>
<td>12.5</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>11. Students evaluation</td>
<td>17.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>12. Research in teaching learning &amp; its uses</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>13. Information &amp; communication technology</td>
<td>12.5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>14. General intelligence test</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Part II Total</td>
<td>8.25</td>
<td>2.1</td>
<td>0</td>
</tr>
<tr>
<td>Overall Similarities</td>
<td>10</td>
<td>15.05</td>
<td>8</td>
</tr>
</tbody>
</table>

Note. A = Philosophical and Sociological Foundations of Education (Ed. 412), B = Educational Psychology (Ed. 421), C = Curriculum and Evaluation (Ed. 431), and D = Classroom Instruction (Ed. 442)

Table 2 shows the poor similarities between the course of secondary level TSC's license course and the core courses of B.Ed. at TU. The table shows that only 10% course of TU matches with the course of teachers' license offered by TSC. Among the four core courses (A, B, C, & D), the subject A is 15%, B is 8%, C is 9.5%, and the D is
7.87% similar with the course of teacher license at secondary level where, the part one general education is 12% similar and the part two educational management and training process is 8.25% similar. In the overall similarity index, the highest portion is of the subject A which is 15% and the lowest is the subject D with 7.87% similarity. In conclusion, the figure indicates that there is very poor course compatibility; hence, it educates us that the TU must review its course so that TE becomes more relevant to the needs of prospective teacher graduates. Similarly, TSC also needs to review its course so that the teacher license result can improve and teachers’ quota never remains unfulfilled. For this purpose, both TU and TSC should plan together and make their course compatible and contribute to the nation, supplying the quality products for its education system.

Besides content analysis, an interview also taken with the university teachers to know the gaps or similarities between the courses of TU and TSC. In this context, a teacher of TE named Hem (pseudo name) responded, I personally think that there are significant gaps in communication among the line agencies of education in Nepal. The universities that educate students to be teachers do not have strong coordination with the TSC and the licensing mechanism, including their recruitment process. This has developed a wider gap between what is expected and what is produced, what knowledge, skills and attitudes were developed in the graduates. Similarly, regarding the gaps of TL and TE, an interviewee school supervisor named Hari says, “To a certain degree, there is a lack of alignment in the courses, including Teacher Professional Development, educational governance and leadership, ICT, and IQ. These subjects cannot be effectively incorporated into the teacher preparation courses at both the 11th and 12th-grade levels as well as at the bachelor's level.” Likewise, assessing the TSC's course and TU's teacher preparation (TP) course, a technical assistant cum coaching teacher put his views: The previous TSC curriculum bore a striking resemblance to the TP program, with the exception of a noticeable absence of General Knowledge (GK) and IQ-related subjects in the TP curriculum. TP's educational approach is tailored to passing exams, requiring just 2 or 3 days of preparation. In contrast, TSC exams necessitate attempting all questions to be eligible for merit. Additionally, the evaluation methods and examination nature differ between the university's TE and TSC exams. Here, assessments are constrained within the 40% to 70% marks range, while the university imposes no such limits. According to them, it is worth noting that the TP course lacks materials related to IT, constitution, and geography. The utilization of digital media has not kept pace with the expectations of the twenty-first century. The TE course requires an update, including the integration of technology-related content. Innovative methods should be integrated into the TP course.

Here, both the results of content analysis (Table 2 & 3) and the stakeholders’ views came in interview and in FGD that revealed the fact that there are weaknesses at institutional level of the both agencies TU and TSC. In this context, MOEST can coordinate the agencies and stakeholders of TE in order to make more compatible courses and improve the outcomes of education.
**Teacher Education and Teacher Selection Courses: Resolving Compatibility Issues**

**TE for Professional Development.** TE is understood as the continuous learning opportunities for the professional development of teachers. Professional development refers to the process of enhancing and improving the knowledge, skills, and competencies of individuals in their chosen profession. Assessing how TSC’s teacher license course and TU’s teacher education course prepare educators for continuous professional development, this study found that TE of TU is flexible, and professionals of any age can enroll and acquire the knowledge and skills. It is also designed as distance education system. In the context of teaching and education, professional development focuses on helping educators continually develop and refine their teaching techniques, strategies, and knowledge. This can encompass a wide range of activities, including workshops, seminars, conferences, online courses, peer collaborations, and more. The ultimate goal of professional development is to empower teachers to deliver high-quality education that meets the evolving needs of students and the educational landscape.

In this context, assessing the rationale of present TE of B.Ed. at TU, an interviewee teacher cum administrator of education put his views:

Certainly, it provides significant benefits in the field of education, but lacks utility in administrative roles. I've studied both humanities and education courses, and I've noticed that education courses have broad but shallow content, while humanities courses offer limited yet profound knowledge. I've observed that individuals with educational backgrounds tend to excel in pedagogy but often lack in-depth subject knowledge compared to those in science and humanities disciplines. When it comes to education, the curriculum tends to lack depth compared to other fields like science and humanities. The idea of granting teaching licenses to everyone is also linked to this issue, particularly regarding the candidates' subject knowledge. This policy is expected to yield qualified professionals in subjects such as mathematics, science, and computer-related areas.

Unit 5 of the general education Part I of TL course includes the content on the teachers' professional development. The content analysis shown in the table three shows that there are only 6% similarities in this area. TE course, therefore, seems almost incompatible in terms of content related to the teachers' professional development of teachers.

**Technology Integration.** The integration of technology in teacher education is to prepare educators who are competent in utilizing modern tools to enhance teaching quality, engage students, and adapt to the changing educational landscape. By incorporating technology, the teacher education programs aim to bridge the gap between traditional pedagogy and the needs of twenty-first century learners. While evaluating the extent to which TSC and TU courses incorporate technology for teaching and learning and identifying the role of digital divides in preparing teachers, the TSC course found more suitable than the TU’s one. In the TL course, Unit 13 attempted to address ICT related contents theoretically while none of the TU’s core course include such contents as its core subjects. However, TU included a practical cum theoretical course of ICT as an elective course in the fourth year of B.Ed. program and runs a four years’ ICT program in some selected campuses. Highlighting the necessity of ICT based pedagogical skills, the FGD participants said, utilizing ICT tools is essential for implementing student-centered teaching approaches, yet we face a scarcity of such tools.
Throughout the COVID-19 pandemic, numerous educational institutions embraced online teaching methods to continue their regular courses. In this context, a school supervisor, named Hari opines,

Although there are numerous challenges with ICT, it's crucial to establish a link between teaching methods and technology. Utilizing technology can enhance the practicality of pedagogy. For instance, when teaching about the functioning of the heart, incorporating video resources into the classroom can be highly effective.

The content analysis shown in Table 3 indicates that there are 12.5% similarities between the TU’s TE and TSC’s TL courses. Part II, Unit XIII of TL course includes the content related to ICT. Among the four core courses, the subject D seems compatible by 50%.

Secondary Level Teacher Selection General Course (SLTSC)

The Teachers Service Commission (TSC) of Nepal is responsible for recruiting and selecting teachers for government schools. The selection process for teachers typically involves various stages, including application, written exams, interviews, and sometimes teaching demonstrations. The specific requirements and procedures can vary based on the level of education (primary, secondary, higher secondary), the subject area, and the region. The TSC announces vacancies and selection processes through the national newspapers and its website.

The secondary level teacher selection course comprises of two papers i.e. first one hour’s general paper of 100 marks with pass marks 50 and next three hours’ subject specific paper of 100 marks with pass marks 40. Here, this study assesses the compatibility of first general paper only. The table below presents the result of content analysis between the TE (core courses i.e. A, B, C, & D) of B.Ed. at TU and teacher selection course (general paper) as given in the table below.

Table 3
Similarities Index of CCTE, B.Ed. of TU with TSC's SLTSGC

<table>
<thead>
<tr>
<th>SLTSGC (Weightage)</th>
<th>Similarities of BED Core Subjects</th>
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<tbody>
<tr>
<td></td>
<td>(Yes/No)</td>
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<tr>
<td></td>
<td>Similarities (%)</td>
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<tr>
<td>Part I: General Education (40%)</td>
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<tr>
<td>1. Knowledge of Universe</td>
<td></td>
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<td>2. Geography of World</td>
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<td>3. Geography of Nepal</td>
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<tr>
<td>4. History, Culture &amp; social management of Nepal</td>
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<td>5. Financial Development of Nepal</td>
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<tr>
<td>6. Environment, Science &amp; Technology</td>
<td></td>
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<tr>
<td>7. International Relation &amp; Association</td>
<td></td>
</tr>
<tr>
<td>8. Information related to political social, economic, scientific &amp; cultural events of national &amp; international importance</td>
<td></td>
</tr>
<tr>
<td>Total Similarities</td>
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</table>
Table 3 depicts the course compatibility or similarity index of the TE core courses (i.e. A, B, C & D) of TU and the teacher selection course (general paper). The
The table shows that the overall similarity is just 7.3% which is very poor. In comparison of the four core subjects, the subject D has the highest similarity percentage i.e. 16.4% and the subject A is just 2.5% similar with the general paper of teacher selection offered by TSC. Likewise, the subject B is 4% and the subject C is 6.4% similar. Here, out of the total five parts, Part I, III and V has 0% similarities with the SLTSGC, which cover 66% weightage. This scenario proves that the teacher selection course (general paper) is also very poor compatibility with the TE courses (core subjects) of B.Ed. at TU. It further indicates that the TE course needs to be reviewed TU or both TU and TSC together review its course contents in order to make it more compatible and improve the teacher selection exam's results.

Comparing TSC's teacher selection course with the teacher preparation course of TU, Homnath, the head of EDCU expresses his opinion:

In the initial paper of TSC, they introduce the latest concepts and endeavor to establish a link between the curriculum and IQ testing. TSC has designed its curriculum to ensure that teacher preparation aligns with present-day requirements. However, it appears that TU's teacher preparation program does not adequately address these aspects. It seems imperative for TU to swiftly incorporate the innovations introduced by TSC. In this way, both the content analysis and interview data indicated the same scenario i.e. the course of TP or TE and TL or TS is mostly incompatible to each other. Hence, TU needs to review its TP courses and incorporate all the aforementioned gaps so that the students who pursue teaching profession in the future can easily face the TL and TS exams.

**Program's Effectiveness.** The teacher selection results (Table 1) show that the university's graduate outcomes and teacher effectiveness are poor. The skills, competencies, and attributes of the graduates from TSC and TU programs that exhibit in their teaching careers are also found poor. A teacher trainer Badri (pseudo name) at interview accepts that even the trained teachers' classroom performance seems weak. While analyzing and identifying the impact of each course on teacher effectiveness from the global perspective and cross-cultural competence, the result is not satisfactory. The growing number of brain-drain, peace, reduction in teacher applicants, and scarcity of teachers in some subjects like mathematics and science have stood as testimony.

While comparing how TSC's teacher license course and TU's teacher education course prepare teachers for diverse cultural and global contexts, and seeking the integration of best international practices integrated into their programs, none of the programs found effective, as both of the course emphasizes on the traditional mechanistic styles. There was not any blended or online teaching methods in those courses. Regarding the theoretical aspect of present teacher trainings in Nepal, a trainer named Indra expresses his view in this way:

The current approach remains mechanistic rather than constructive. Training programs should incorporate project-based learning within their modules. Many current teachers lack the ability to effectively implement project-based learning, despite the necessity for it. Furthermore, they often struggle to establish a strong connection with their students. The existing training focuses more on achieving objectives rather than fostering genuine learning experiences.
The results presented in Table 1 demonstrate that the current TE programs at TSC are yielding unsatisfactory results. The increasing number of No Objection Certificate (NOC) taking students; the emigration of skilled individuals; the performance of students at the school level; and the effectiveness of teachers in the classroom all point to the university's TE programs lacking external efficiency. This indicates the necessity for a thorough evaluation of the university's TE programs and their overall effectiveness. It is imperative to initiate an analysis of outcomes and impacts as the first step in this process.

**CONCLUSION AND IMPLICATIONS**

The present study is an IPA-based exploratory qualitative investigation. It has employed a variety of techniques and instruments to increase the study's credibility. It has employed FGD for an empirical and critical analysis, interviewing for inductive reasoning, and content analysis to assess course suitability. It has found an unexpected situation with the TE and how well it works with courses on teacher license and selection. Its strength is good, but it also has certain shortcomings. Due to the resource limitations, only a small sample from the chosen TE institutions was used in this study. Therefore, in order to assure maximal validity, more research with a larger range of institutions, participants, and resources is required.

The teacher education programs in Nepal are promoting continuous learning and professional development, encouraging educators to stay updated with educational trends and innovations. This prepares students for the future job market, which often requires skills in technology, collaboration, adaptability, and problem-solving. This study found poor compatibility of TE of TU with the TSC's TS and TL courses. The average similarity index of TL and TS courses was just 9%. The study suggests a comprehensive overhaul of teacher education programs, integrating foundational courses to understand societal and political dynamics. The study calls for collaborative efforts with universities, the TSC, and stakeholders to bridge the theory-practice gap and harmonize the subject expertise with pedagogical skills. This will enhance Nepal's education system. Based on the above discussion and conclusions, the following implications are drawn:

**Policy Level Implications**

a) The study reveals poor course compatibility between TU's TE and TSC's TL and TS courses, with only around 9% similarities, prompting a review of course construction policies.

b) To address the equal opportunity policy for teaching licenses, non-education students must undergo training or complete an equivalent TP course to prevent potential educational tensions. In addition, the government may adopt a policy to divide instructors into professionals and nonprofessionals, similar to Ghanaian practice.

c) Internship activities in the TE program are essential but currently they serve as a mere formality with inadequate duration, necessitating policy changes by FOE, TU.

**Practice Level Implications**

a) Bridging the theory-practice gap in teacher education requires comprehensive reforms, curriculum alignment with TSC, and strong collaboration among relevant agencies.
b) While acquiring teaching skills is crucial, it is equally important to provide sufficient teaching materials and training on their effective utilization.

c) Proficiency in contemporary technologies and a student-centered teaching approach are essential for educator training.

Research and Planning Level Implications

a) High failure rates in TSC’s exams may be linked to the course content, structure, and marking schemes, warranting further research to identify the causes.

b) The examination systems of TSC and TU, including pass marks and marking criteria, appear unjust and unscientific, calling for revision.

c) TU should offer teacher preparation courses as placement and follow-up services to improve the quality of outcomes and impacts, requiring comprehensive human resource planning.

d) Periodic planning and revisions of the traditional TE curriculum in collaboration with the government, every 5 to 10 years are essential to modernize and make it more attractive to aspiring educators.

CONFLICT OF INTERESTS

The authors have no conflicts of interest to disclose.

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