



The Study of Professional Competencies of Faculties in RUB Colleges: Students' Perspective

Sonam Wangmo ^{a*} and Kinga Wangpo ^a

^a Gedu College of Business Studies, Royal University of Bhutan, Bhutan.

Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJESS/2023/v43i1934

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/98953>

Original Research Article

Received: 19/02/2023

Accepted: 23/04/2023

Published: 02/05/2023

ABSTRACT

Aims: This study attempted to assess the levels of professional competencies of faculties in Royal University of Bhutan (RUB) colleges; secondly, the professional competencies that are rated high by students in different colleges were studied, and thirdly which area of professional competencies requires attention was assessed. Ten teaching professional competency factors were examined by the researchers.

Study Design: A descriptive research design with a quantitative approach was used in this study.

Place and Duration of Study: The study was conducted in Bhutan for a period of one year.

Methodology: A total of 384 students from the colleges of the Royal University of Bhutan participated in the study using an online structured questionnaire through Google Forms. The results were analyzed and presented using descriptive statistics and mean analysis.

Results: According to the findings, faculty members at the various Royal University of Bhutan institutions are viewed as having a high level of competence across all ten competency parameters. The results also indicated that there were variations in answers among the students in terms of the competency that was strongly possessed by the faculties of the separate colleges. Thirdly, it was determined that the acclaimed author's competency was a skill that faculties at various colleges of

*Corresponding author: Email: sonamwangmo.gcbs@rub.edu.bt;

the Royal University of Bhutan needed to improve.

Conclusion: The key recommendations of the study are the capacity building of the faculties in the area of acclaimed author competency which students feel the faculties are lacking.

Keywords: Teaching competency; The Royal University of Bhutan; college; students.

ABBREVIATIONS

<i>BPST</i>	: <i>Bhutan Professional Standards for Teachers</i>
<i>CLCS</i>	: <i>College of Language and Culture Studies</i>
<i>CNR</i>	: <i>College of Natural Resources</i>
<i>CST</i>	: <i>College of Science and Technology</i>
<i>GCBS</i>	: <i>Gedu College of Business Studies</i>
<i>GCIT</i>	: <i>Gyalpozhing College of Information Technology</i>
<i>IWP</i>	: <i>Individual Work Plan</i>
<i>JNEC</i>	: <i>Jigme Namgyel Engineering College</i>
<i>PCE</i>	: <i>Paro College of Education</i>
<i>PgCHE</i>	: <i>Post Graduate Certificate in Higher Education</i>
<i>PgDHE</i>	: <i>Post Graduate Diploma in Higher Education</i>
<i>RUB</i>	: <i>Royal University of Bhutan</i>
<i>SC</i>	: <i>Sherubtse College</i>
<i>SCE</i>	: <i>Samtse College of Education</i>
<i>YCC</i>	: <i>Yonphula Centenary College</i>

1. INTRODUCTION

“A university instructor is in touch with the students directly and indefinitely. He/she provides them with knowledge and facts, helps them learn and enhance their abilities, and improves their skills. He/she tries critically to evaluate their knowledge development, to guide their future (often lifelong) development efforts. Consequently, it is first of all important for teachers to properly build up and then retain their professional authority and qualifications” [1]. A teacher not only familiarizes learners with conceptual information but also imparts sufficient qualities to the students, which are the secret part of the education curriculum, throughout the time of their contact with them. Teachers are therefore considered to have a significant effect on the lives of students; it is, therefore, important for those in the teaching profession to be prepared with certain skills and personality qualities that can influence the change in the lives of learners. Researchers believe that most of the faculties of RUB colleges have undergone some basic courses for higher education namely, Post Graduate Certificate in Higher Education

(PgCHE) and Post Graduate Diploma in Higher Education (PgDHE) to enhance their professional competence concerning teaching and learning skills, while some colleges even have experienced faculties not having any training in teaching-learning skills. Teaching and learning skills are just one facet to check a faculty's competency so is the subject knowledge (experience). “The researchers believe that there are other factors/ standards in addition to the above-mentioned factors to assess the competency of a faculty and the researchers have identified ten professional competency standards namely: Moral and ethical competence, Role model competence, Technical (expert) competence, Mature personality competence, Scientific competence, Critically thinking competence, Acclaimed author's competence, Excellent teaching competence, Communication competence, Motivation competence” [1]. And to have all these competencies or qualities in our faculties is unthinkable but doable or achievable if provided with professional development courses, training, and appropriate motivational strategy in which both the quality of faculties and in turn students' competencies will be improved.

Since no research has been conducted in this area in Bhutan, researchers are not aware of which competencies RUB faculties hold or which competencies students see in their faculties. Overall, this research will assess which are professional competencies present or lacking in the faculties from the student's perspective.

1.1 Research Question

1. What are the levels of professional competencies of faculties in RUB colleges?

1.1.1 Sub-Questions

1. Which professional competencies are rated high by students in different colleges?
2. Which area of professional competencies requires more attention?

1.2 Literature Review

“Competency is the ability to apply knowledge and skills to produce a required outcome. It is the ability to perform activities within an occupation: to function as expected for employment and the ability to do a job under a variety of conditions, including the ability to cope with contingencies” [2]. “Competence (in terms of professional competence) can be defined as a summary of the key professional and personal skills/talents and behavioral patterns that an individual needs to have and demonstrate in order to successfully accomplish the defined professional goals and perform the related professional tasks, duties, and responsibilities” [1].

Coinciding with Teacher’s Day on May 2, the education ministry launched the Bhutan Professional Standards for Teachers (BPST), a framework for the development of teachers. The BPST would measure the competencies and practices of teachers to improve the quality of education. The seven standards include the diversity of learners, learning environment, content knowledge, and pedagogy, planning, and teaching, assessment and reporting, personal growth and professional development, and professional engagement and Bhutanese values [3]. It is a great start for the Ministry of Education of Bhutan to think of professional standards in order to measure the competencies of teachers in order to retain and attract good teachers in the system.

During the 3rd Convocation of the Royal University of Bhutan, the present King of Bhutan stated that “we must build an education system that nurtures people with the right skills, knowledge, and training to fulfill this Vision. The sooner we realize this, the better”. With the assessment of competencies among the RUB faculties, the researchers will be able to stake information in nurturing the people with the right skills, knowledge, and training.

The RUB should also adopt similar means to measure their faculty’s competencies in addition to faculties’ IWP ratings which don’t indicate any improvement in students’ academic or personal development. A student expects more from their faculties apart from teaching, [4] stated in her research findings that:

- “I am afraid that our trainers might not have all the generic/employability skills

which they are required to teach to their students.”

- “To ensure that generic/employability skills are developed, one should have the skills and knowledge necessary to impart those skills to others. Teaching staff should receive appropriate training to be able to achieve it.”
- “I don’t like their way of teaching because when we ask questions some instructors just get angry and say ‘Do it yourself’.

Her findings indicate that there is a lack of professional competencies in their instructors and students felt they required some training to improve their delivery.

“Multiple researchers have studied the professional competencies of teachers and lecturers and they have identified the following indicators to measure their faculty’s competence; as an adopted framework for teachers, competence is Moral and ethical competence, Role model competence, Technical (expert) competence, Mature personality competence, Scientific competence, Critically thinking competence, Acclaimed author’s competence, Excellent teaching competence, Communication competence, Motivation competence” [1]. Their study concluded by saying that the motivation competence of the teachers is crucial in their study. It is the basic predetermination of all pedagogic and expert activities and their satisfactory level.

“Another study focused on developing Competency Model to Promote Tutor’s Abilities and Qualities in China shows that tutors’ significant characteristics include personal charisma, emotional stability, clear thinking, affinity, style of work, patience, and training others; Some competency characteristics that the tutors slightly lack such as communication, coordination and self-confidence” [5]. On the other hand research [6] has identified that “the areas that needed to be enhanced were related to professional knowledge and skills, instructional planning, instructional execution, and instructional evaluation. These technical lecturers also needed to improve their English language proficiency with regard to listening, speaking, and writing. As such, it is vital that relevant professional development programs be tailored to improve these competencies. It is even more important that these programs are closely monitored to evaluate their effectiveness”.

The researcher would like to assess the competencies level of the College's faculties with the adoption of ten competency indicators developed by [1]:

1. Moral and ethical competence: in terms of character strength, ethical awareness, moral judgment skills, and willingness to do well.
2. Role model competence: the person understands the more detailed context they operate in, taking into account the wider impact; networks effectively with everyone and helps their teams do the same.
3. Technical (expert) competence: the person is a qualified and recognized specialist in the field of his/her teaching and research; has excellent professional skills and competencies; rightly serves as a proficient expert, able to combine theoretical knowledge with practical knowledge and experience.
4. Mature personality competence: The person is a mature, highly creative, inventive, resourceful, and courageous personality; is always tolerant, empathic, accommodating, and helpful to others (students and colleagues alike); sees his/her mission as the accomplishment of his/her personal qualities, and permanently strives to cultivate them; educates students and colleagues in close participation with them, respecting and developing their personalities.
5. Scientific competence: the person is a zealous, responsible, relentless, resourceful, and highly competent scientist and researcher, either at the level of a cooperating solver or an owner/guarantor of scientific projects; his/her scientific efforts and creative research contribute to knowledge development.
6. Critically thinking competence: encompasses a set of abilities that teachers use to examine their own thinking, and that of others, about information that they receive through observation, experience, and various forms of communication.
7. Acclaimed author's competence: the person publishes his/her outputs (publications) with such quality, periodicity, and originality.
8. Excellent teaching competence: the person is an excellent teacher; can define the key

terms and elements of any topic and explain them to students understandably; uses and greatly combines various educational methods and elements.

9. Communication competence: the person has great communication skills, notably assertiveness, empathy, active listening, and persuasion; appropriately combines those communication skills and uses them in his/her educational activities.
10. Motivation competence: the person motivates others through each of his/her actions, every lecture or seminar; sees motivation as the key element of any process, work, effort, or relationship; respects the dynamics of the motivation of individuals.

And, researchers will also test which competencies are lacking by faculties of RUB and accordingly look for scope for professional development.

2. MATERIALS AND METHODS

The study of professional competencies of faculties in RUB colleges: the viewpoint of students captured which professional competencies are present in faculties of 10 different colleges under RUB out of 10 competencies examined. The competencies that need more attention have also been captured. The research included all students from ten Colleges, with a total sample size of 384.

2.1 Design/ Approach

A descriptive approach was used to assess the level of professional competence of faculty in RUB Colleges. This design allowed researchers to test 10 professional competency indicators described from the perspective of students. Descriptive design is suitable for studies that aim to describe and analyze a given phenomenon as it exists in reality through collecting needed data via survey tools [7].

2.2 Population and Sample

The study population was composed of students studying at different RUB colleges. Over 9652 students were enrolled in 10 different colleges as per the record of the RUB annual report 2018-2019. A probability sampling design was used to cover and give equal chances to all the students present in 10 different colleges to be included in

the sample [8]. The sample size was calculated using the Taro Yamane formula calculated at a 95% confidence interval [9]. A stratified random sampling method was used to distribute 384 sample sizes among 10 colleges that are more homogeneous than the total population as shown in Table 1. Stratified sampling design allows representation from each subgroup (stratum) of the population [10]. For the selection of items from each stratum, a simple random sampling method was used giving equal chance to each respondent in the population for being selected in the sample [8].

2.3 Data Collection Instrument and Analyses Tools

The researchers used primary sources to collect information and it was done by using a structured questionnaire. Primary data are those which are collected afresh and specific to the research objectives which makes the data more reliable [8]. Structured questionnaires are easy to use and evaluate with predetermined responses and options [10]. Before collecting data from the actual representation of the sample, researchers conducted a “pilot study” and tested the reliability

of the structured questionnaires and made corrections/improvements in the questionnaire by collecting data through a questionnaire from forty respondents of GCBS via Google form.

To summarize the survey data researchers used central trend or statistical average measures to compare the mean scores of Professional competencies among ten different RUB colleges. To explain the nominal item questions, descriptive statistics, and frequency tables were used and custom tables were also used to compare the mean scores of professional competencies in RUB colleges.

2.4 Reliability

To ensure the consistent measurement of the data across time and error-free, the researcher conducted a pilot survey by collecting data through a questionnaire from forty respondents of GCBS via Google form. It showed that the responses given by the respondents were highly reliable as the Reliability Coefficient for ten constructs/items was closer to 1 as shown in Table 2 (One) [11].

Table 1. Stratified sample size

College	Specific no. of sample
Gedu College of Business Studies (GCBS)	$1594/9652 * 384 = 63$
Paro College of Education (PCE)	$1528/9652 * 384 = 61$
Samtse College of Education (SCE)	$873/9652 * 384 = 35$
Sherubtse College (SC)	$1634/9652 * 384 = 65$
Jigme Namgyel Engineering College (JNEC)	$838/9652 * 384 = 33$
College of Science and Technology (CST)	$965/9652 * 384 = 38$
College of Natural Resources (CNR)	$848/9652 * 384 = 34$
Gyalpozhing College of Information Technology (GCIT)	$157/9652 * 384 = 6$
College of Language and Culture Studies (CLCS)	$1153/9652 * 384 = 46$
Yonphula Centenary College	$62/9652 * 384 = 3$
Total Sample	384

**multiplication*

Table 2. Reliability test

Variable name	Cronbach's alpha	No. of items
1. Technical (expert) competence	.899	8
2. Excellent teaching competence	.916	9
3. Moral and ethical competence	.876	6
4. Role model competence	.897	7
5. Maturity personality competence	.904	7
6. Communication competence	.924	8
7. Motivation competence	.900	6
8. Scientific competence	.895	5
9. Acclaimed authors competence	.861	3
10. Critically thinking competence	.900	6

3. RESULTS AND DISCUSSION

3.1 Frequency Analysis

Frequency tool has been used to represent the demographic information result of the respondents as presented in Figs. 1, 2, and 3.

To interpret the mean values of the result, the study has used the mean range values as presented in Table 3 [12].

3.2 Overall Professional Teaching Competencies

All ten professional competency factors fall under the range of "Highly competent" as per the assessment of mean ranges, where all the factors have a mean value of more than 3.41 and less than 4.20, which is a very promising result for RUB. Comparatively, the overall mean of moral and ethical competence is higher than other competency factors, communication

competence, and critical thinking competence, and the acclaimed author competence has the lowest overall mean as presented in Fig. 4.

3.3 Respective College Wise Analysis

A description of the overall professional competencies present in ten different RUB colleges is shown in Table 4. The common findings observed by the researchers were that out of ten colleges, eight colleges ranked least in the competence of acclaimed authors compared to other competencies, but YCC faculties are rated maximally competent in the competence of acclaimed authors with a mean value of 4.50. CLCS, CNR, and SC, on the other hand, scored high in moral and ethical competence, and GCBS, GCIT, and SCE scored high in critical thinking skills, whereas, PCE with a mean score of 4.14 each, scored high in communication and critical thinking competence. In scientific competence and motivational competence, only CST and JNEC have a high mean value, respectively.

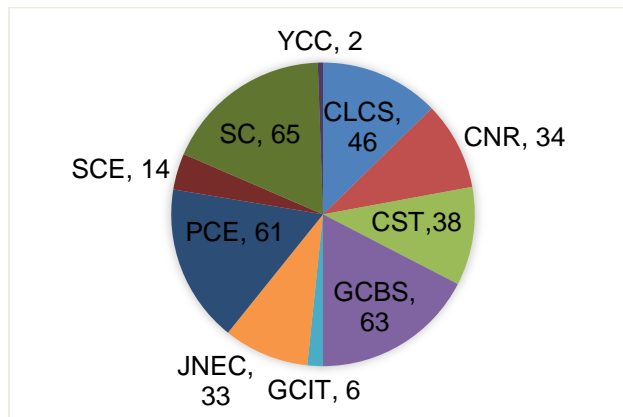


Fig. 1. Respondents from different colleges under RUB

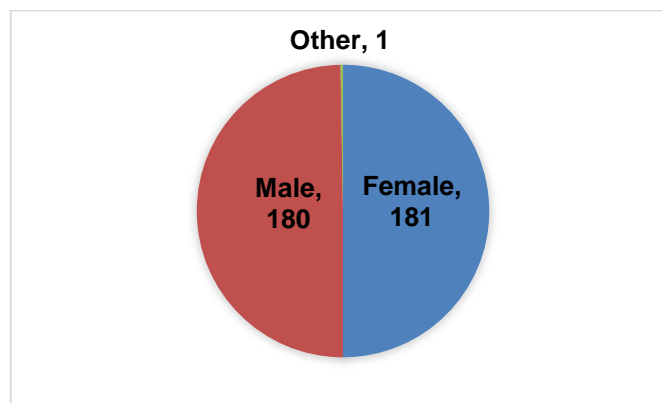


Fig. 2. Gender

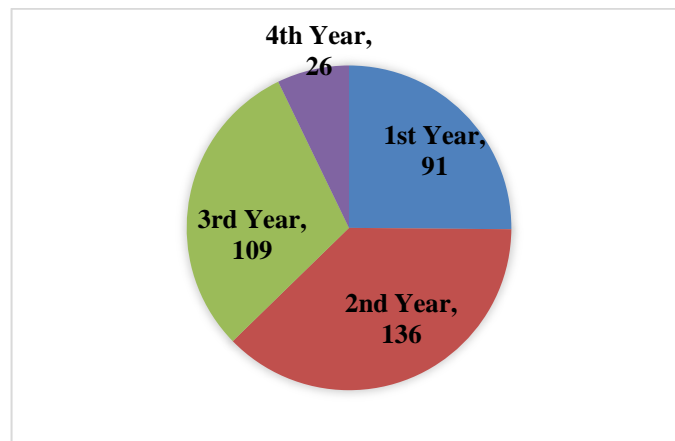


Fig. 3. Batch (year)

Table 3. Mean range evaluations

Range	Option	Scale	Evaluation
From 4.21-5.00	Strongly Agree	5	Maximally competent
From 3.41-4.20	Agree	4	Highly competent
From 2.61-3.40	Neutral	3	Moderately competent
From 1.81-2.60	Disagree	2	Basically competent
From 1.00-1.80	Strongly Disagree	1	Incompetent



Fig. 4. Overall teaching competency

Table 4. Summary of professional competencies in ten different colleges under RUB

	CLCS	CNR	CST	GCBS	GCIT	JNEC	PCE	SCE	SC	YCC
Technical	3.86	4.02	3.61	3.90	3.63	4.01	4.11	4.22	4.04	3.88
Teaching	3.91	4.05	3.58	3.84	3.63	4.03	4.05	4.22	4.09	3.56
Moral	3.96	4.26	3.79	3.87	3.56	4.04	4.08	4.08	4.19	3.50
Role Model	3.74	4.18	3.72	3.92	3.50	3.95	4.11	4.14	4.13	3.79
Maturity Personality	3.87	4.14	3.51	3.81	3.40	3.95	4.03	4.28	4.08	3.86
Communication	3.87	4.19	3.72	3.99	3.67	4.11	4.14	4.28	4.16	3.88
Motivation	3.85	4.06	3.68	3.89	3.56	4.14	4.11	4.27	3.98	3.75
Scientific	3.61	4.14	3.81	3.90	3.37	4.03	4.07	4.01	3.90	3.70
Acclaimed Author	3.36	3.92	3.69	3.56	2.94	3.68	3.87	3.60	3.64	4.50
Critically Thinking	3.84	4.08	3.80	4.03	3.89	4.10	4.14	4.45	4.17	4.00

3.4 Discussion

Out of ten different competencies studied, the significant competence present in faculties of different colleges under RUB is moral and ethical competence, communication competence, and critical thinking competence, where the majority of participants found these competencies to be prevalent in their faculties, and these results are strongly supported by the study carried out by [13] titled "Current Trends in Competency-Based Education" concluded some of the generic competencies that university faculties must develop are effective communication in different languages, ethical practice, humanism, and civic engagement, critical thinking and problem-solving which develops students to engage in deep learning. It sounds very interesting to write, RUB faculties already have the highest competency scores in these competency factors where researchers believe faculties in RUB colleges are engaged in developing student's competencies to survive in the competitive world which requires a person to be morally and ethically true, he/she has effective communication and developing their critical thinking capacity. Similarly, [14] questioned what competencies should teachers of 21st-century learners require and concluded that teachers should inspire creativity, critical thinking, collaboration, and communication so that students are ready for tomorrow's world. On the other hand, [1] concluded that the motivation competence of the teachers is crucial in their study. It is the basic predetermination of all pedagogic and expert activities and their satisfactory level. Highly motivated to work with students responsibly and zealously, he or she also supports the other teachers in such motivational efforts; moreover, the teacher sensitively and correctly influences the motivation of students, acts as a positive role model for them, and leaves a significant and inspiring impression on their lives and it is encouraging to see the result of this study that all the colleges have achieved a highly competent score in motivation competence.

Researchers conclude that the competency which requires more attention at the current stage for RUB colleges is on acclaimed author's competence since out of ten colleges, eight colleges have scored the lowest mean score in this competence. It shows a majority of faculties are not seasoned writers or researchers and has less knowledge of publications of their work but researchers believe that since research culture in

RUB has caught its pace lately and many of the faculties are novice researchers. Similarly, [15] acknowledges that universities in Bhutan are quite young compared with most other national university systems and have a lot of growing to do. Strongly reinforced by [16], research culture in universities is surely going to improve the professional competencies of faculties where studies conclude that the average competence of the teachers needs to be developed with a variety of efforts that is by offering instructional media that complement and, enhancing the achievement motivation of teachers by improving the principals' supervision and fostering teachers to do research. On the other hand, According to [15] it is worrisome that the research culture in Bhutan is in a precarious position at the moment and is in danger of regressing if innovation, academic freedom, decentralization, and investment in institutional and individual capacities are not supported.

The final result shows that all colleges under RUB fall in the same range of mean scores indicating that all the colleges have highly competent faculties with very minimal differences in a mean scores where CNR and SCE topped the list and CST and GCIT have the least score. This finding was most satisfying since it made it clear that all the colleges had equally competent faculties which are rated by students of different colleges. Overall, the faculties of RUB colleges are considered to be competent to groom the future generation of Bhutan. But this research has not considered studying whether faculty's competencies lead to the effectiveness of students' performance or not, so researchers' next study can be to study this relationship between professional competence and students' performance. This relationship study can guarantee which competencies do have a significant impact on student's performance.

4. CONCLUSION

Students from different RUB colleges perceive that the teachers are highly competent. Secondly, out of the ten competency variables tested, the outcome showed that three colleges, CLCL, CNR, and SC, scored high on moral and ethical skills, while colleges such as GCBS, GCIT, and SCE scored high on critical thinking skills. In both communication and critical thinking competence, PCE scored high with a mean score of 4.14 each while YCC faculties are rated maximally competent in the competence of acclaimed authors with a mean value of 4.50.

CST students believe that their faculties are more knowledgeable in science skills, while JNEC faculties have a high motivational ability score. With regard to the competency that requires the most attention which the faculties have to work on, except for CST, which has scored the lowest in maturity personality competence and YCC in moral competence, all eight other colleges have the lowest score in the acclaimed author competence.

In general, this study recommends that individual teachers, respective colleges, and the Royal University of Bhutan should make efforts to improve the competence of the faculties of the acclaimed author. Hence, training and development programs aimed at improving the knowledge and skills of the faculties in the field of publication should be provided. Faculties can improve their existing competencies through the implementation of personal evaluation and development initiatives as well. The teacher assumes an essential part of the learning process, hence their knowledge and positive behavior would provide the student with fresh perspectives and experience.

Future Bhutan-based researchers who want to conduct a study in the same area, in addition to the competency variable researched in this study, can also adopt and study the seven standards framed by the Ministry of Education [17], called Bhutan Professional Standards for Teachers (BPST), which defines the knowledge, skills, and values expected of teachers. The seven standards are elaborated in 37 focus areas, which refer to specific dimensions of teacher practices. These are further illustrated as indicators at four career stages: Beginning, Proficient, Accomplished, and Distinguished.

ACKNOWLEDGEMENTS

The authors would like to extend our gratitude to the Royal University of Bhutan for funding this research as a part of the Annual Research Grant. We would also like to thank Gedu College of Business Studies for providing us with all the necessary support and lastly the respondents for being part of the study.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Blašková M, Blaško R, Kucharčíková A. Competences and Competence Model of University Teachers. *Procedia - Social and Behavioral Sciences*. Dec. 2014;159:457–467. DOI:<https://doi.org/10.1016/j.sbspro.2014.12.407>.
2. Trinder J. Competency standards - a measure of the quality of a workforce. Accessed: Apr. 10, 2023. [Online]. Available:http://www.isprs.org/proceedings/XXXVII/congress/6a_pdf/5_WG-VI-5/01.pdf
3. Zangmo R. A new standard to measure teachers' competencies. *Kuensel*; May 04, 2019. Available:<https://kuenselonline.com/a-new-standard-to-measure-teachers-competencies/> (accessed Apr. 10, 2023).
4. Khandu Y. Technical and Vocational Education and Training (TVET): Training providers', employers', instructors' and trainees' attitudes to generic/employability skills in Bhutan | *TVET@Asia*. The online Journal for Technical and Vocational Education and training in Asia; Jun. 29, 2014. Available:<https://tvet-online.asia/issue/3/khandu/> (accessed Apr. 10, 2023).
5. Zhang J. Developing competency model to promote tutor's ability and qualities in China. *Creative Education*. 2014; 05(11):1000–1007. DOI: <https://doi.org/10.4236/ce.2014.511114>.
6. Kamaruddin WNW, Ibrahim MS. Enhancing Malaysian polytechnic technical lecturers' competency through the identification of professional development programs. *Procedia - Social and Behavioral Sciences*. 2010;7:446–454. DOI:<https://doi.org/10.1016/j.sbspro.2010.10.061>.
7. Gall MD, Gall JP, Borg WR. Educational research: An introduction. 8th ed. Boston: Pearson/Allyn & Bacon; 2007.
8. Dangi HK, Dewen S. Business research methods. Delhi: Cengage Learning; 2016.
9. Yamane T. Statistics, 2nd ed. New York: Evanston & London, Harper & Row; 1967.
10. Kothari R. Research methodology: Methods and techniques. New Delhi: New Age International; 2004.

11. Cortina JM. What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*. 1993; 78(1):98–104.
DOI:<https://doi.org/10.1037/0021-9010.78.1.98>.
12. Memisoglu Salih P. Teachers and administrators perceptions of knowledge management competence of high school administrators. *Educational Research and Reviews*. Feb. 2016;11(4):125–133.
DOI: <https://doi.org/10.5897/err2015.2558>.
13. Hernández-de-Menéndez M, Morales-Menendez R. Current trends in competency based education. *World Journal of Engineering and Technology*. 2016;04(03):193–199.
DOI: <https://doi.org/10.4236/wjet.2016.43d023>.
14. Nessipbayeva O. The competencies of the modern teacher. *Bulgarian Comparative Education Society*; 2012.
Available:<https://eric.ed.gov/?id=ED567059>
15. Sherab K, Schuelka MJ. The value of research culture | *The Druk Journal*. The Druk Journal; 2019.
Available:<http://drukjournal.bt/the-value-of-research-culture/> (accessed Apr. 10, 2023).
16. Hi Rahman M. Professional Competence, Pedagogical Competence and the Performance of Junior High School of Science Teachers. *Journal of Education and Practice*. 2014;5(9):75.
Accessed: Apr. 10, 2023. [Online]. Available:<https://iiste.org/Journals/index.php/JEP/article/view/11868>
17. Bhutan. འབྲུག་གི་སློབ་དཔྱད་ལྷན་ཁྲིའི་གཞན་ཚང་། Ministry of Education Royal Government of Bhutan Professional Standards for Teachers; 2020.
Accessed: Apr. 10, 2023. [Online]. Available:<http://www.education.gov.bt/wp-content/uploads/2020/09/BPST.pdf>

© 2023 Wangmo and Wangpo; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/98953>