

Using Teaching Aids; an Elapsed Skill among Health Educators in Nepal

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Abstract— The major component of any teacher training program is ‘practice of teaching aids’. Teaching aids are integral to normal schools and produce benefits to both teachers and students. Health education curriculum at Tribhuvan University aims to produce quality health educators. It is a behavioral science under faculty of education which includes the suffice courses on use of diversified teaching aids. However, in recent years, the quality of teacher training program is questioned especially in terms of using teaching aids and making teaching learning effective. A qualitative phenomenological study was conducted in Nepalese campuses during 2018-2019 to identify the knowledge of using teaching aids and their use in real classroom situation among health education teachers. It also sought the factors affecting the gap in it. Eighteen in-depth interviews, eighteen classroom observations and four focus group discussions (total twenty-six teachers) were conducted. Health educators reflected insufficient knowledge of using teaching aids. It was further poorer in case of using teaching aids inside classroom. Literally no teacher used any material. Teachers though revealed multiple causes for not using teaching aids inside the classrooms; the most striking reasons besides teachers’ poor-professionalism were lack of monitoring, supervision and motivation from the authority.

Index Terms— Health educator, health education, teaching aid, teaching material, Nepal.

1 INTRODUCTION

A National Commission of Education in Nepal was formed in 1991 to recommend the government the ways to improve education system in the new context [1]. The commission recommended that the government should produce trained teacher for effective teaching. However, the classroom teaching did not improve as it was expected. The studies conducted in Nepal show that the teacher behavior in the classroom is direct and textbook centered. The teachers tend to be authoritative and foremost in nature. Lecture is there for bulleted lists. major technique of teaching, with little or no use of instructional materials [2]. However, this lecture could also be improved if varieties of teaching aids are used in classrooms.

Teaching is a set of skills for the realization of a specified set of objectives [3]. The major goal of any teacher education program is to provide teachers with necessary knowledge and skills required for effective teaching. The health education curriculum at Tribhuvan University (TU) aims to produce

quality teacher and teacher educator in the field of health education. The courses include both content and pedagogical skills. Such skills are practiced in the micro-teaching programs too. However, the health education teachers after the end of their degree find it hard to implement the knowledge and skills received from the courses. Education degree holders are called the trained one in teaching in Nepal. Nevertheless, they themselves are not able to practice or they do not practice trained skills in their respective institutions.

Teaching aids are an integral component in any classroom and good opportunity for a teacher to express their teaching skills. According to Gall, Borg and Gall (1996), teaching skills are specific instructional activities and procedures that a teacher may use in their classroom. The knowledge and practice of teaching aids harmonize distinct place if used by a teacher during teaching. Teaching aids make the material presented in cognitive structure that fits the students. Benefits of teaching aids include helping learners improve reading [4] comprehen-

sion skills, illustrating or reinforcing a skill or concept, differentiating instruction and relieving anxiety or boredom by presenting information in a new and exciting way [5]. Teaching aids also engage students' other senses since there are no limits in what aids can be utilized when supplementing a lesson. Teaching aids help to make the learning environment interesting and engaging [6]. Health education is a behavioral science to promote health awareness. It is imperative that health education teachers be thoroughly acquainted with the knowledge and skill of using teaching aids and resources available to them and that they have a clear understanding of the essentials of a functional materials-selection program. Many of the materials needed for effective health education teaching are used often enough to warrant their being part of every classroom's basic equipment. Teaching is a complex task. Although TU health education courses focus on linking knowledge and skills for teaching by using teaching aids, the real classroom practice is still perceived less effective.

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1. OBJECTIVES OF THE STUDY

The study aimed to identify the knowledge of using teaching aids and its application by health educators in classroom in the teacher training program of TU. It also focused on finding the factors creating the gap in using teaching aids.

2. MATERIALS AND METHODS

This research was conducted as a qualitative phenomenology method. It incorporated all the health education teachers teaching at bachelor and master levels at different campuses of Province 3 affiliated to TU, Nepal. Sample campuses and teachers from 4 districts from 3 geographical regions (Mountain - Dolakha, Hill - Kathmandu and Bhaktapur, and Terai - Chitwan) were selected purposively. Eighteen teachers were interviewed and observed, whereas 4 Focus Group Discussions (FGDs) were conducted. Twenty-six teachers participated in the FGDs. However, the teachers who were teaching in two or more campuses were included only for once as sample. An in-depth interview guideline was used to collect data related to teachers' knowledge on using teaching aids. As for the class observation, an observation guideline of different teaching skills including the use of teaching aids was used. It explored the competency of the trained teachers if they demonstrated the use skill of teaching aids in classroom. An FGD topic guide was used to dig deeper into the situation and perceived causes of not using the skill of using teaching aids.

Trustworthiness of the tools was maintained through consultation with experts, thick description, members check, and triangulation. Thematic interpretation and analyses were interwoven from various datasets for triangulation. Participants were informed and consent was taken and requested for voluntary participation. Information obtained from participants was kept confidential with anonymity. Participants were given right to quit anytime of data collection. Respects to the cultural and social norms of participants were paid attention throughout the research process.

3. RESULTS AND DISCUSSION

Knowledge of Teaching Aids among Health Educators

Regarding the knowledge of use of teaching aids, all the teachers were found with sound knowledge and defined it flawlessly. For example, a teacher in Dolakha said, *"The subjects or things used in the classroom related to the subjects that the students can see, observe, and handle are called the teaching materials. First, one has to become sure to use it appropriately and effectively. One has to use the objects as per the text, topic or subject"*.

Similar views were obtained from a teacher of Chitwan who said, *"Teaching material is a material or object or actual thing that is used to fulfill academic goal in class"*. Another teacher from Kathmandu identified teaching aids as those materials which are used to make the subject matter clear, easy to understand and facilitate teachers in their teaching. Very similar views were given by a teacher of Bhaktapur by saying *"teaching aids are the tools which help to make teaching effective so as to provide students active learning skills"*. Most of the teachers recognized that these include daily used materials such as small booklets, references and anything else available and suitable.

When asked teachers to state the importance of using teaching aids, they revealed that they knew much about it; however, most of them assumed to use it less at the higher levels. A female teacher in Bhaktapur supposed that the teaching materials are specially needed to teach complex matters but not compulsory relating to the general concepts which the senior students can easily understand. Similar to this, another teacher from the same district said that the importance of these materials is too low at the higher level. He added, *"Teaching materials are inevitable for teaching complex materials but the students of upper levels can easily understand the general concepts"*.

Regarding the importance of teaching aids, most of the teachers identified it in supporting teaching learning activity and make the subject matter easier to understand. Some teachers perceived it as the best way to motivate the students to show interest in learning. A teacher from Kathmandu said that, *"It makes both teacher and students understand the subject matter easily. The difficult content is made understandable through the use of teaching aids"*.

A teacher in Dolakha gave his own experience and listed several importance of using teaching materials. He stated, *"A teacher should not go empty handed. If teachers go with materials, students pay attention to them. A teacher should carry something new beside marker and duster. I put the teaching materials first on the board and present the subject and prepare the environment to discuss on the subject, which always create an atmosphere of joy inside the classroom"*.

On the other hand, it was asked them about the knowledge of using teaching aids with respect to health education 'which aids are important to be used in health education in general'. Their responses arose as follows:

"I believe that health educators should enter class with materials like charts of health care, cleanliness, treatment methods, human organs, systems, etc. and posters related to the topic which make the students cautious towards learning something new".

"In health education, the use of new technology is suitable. Internet is the main source of teaching materials. Such materials can also be brought from health organizations such as Ministry of Health, and other GOs and NGOs".

"The materials like posters, pamphlets and leaflets found in public health offices would be important to be used in health education".

In FGD in Kathmandu, a male teacher enthusiastically said, *"Classrooms of 21st century should be equipped with internet and facilities of information technology".*

There must be an understanding of linking different aids to subject matter, mixing up of varieties of teaching aids, use of local aids, and engaging students towards learning through the aids. Health educators introduced the 'skill of using aids' and its importance well. However, in the discussion, they did not give any evidence of understanding these sub-skills. They know the importance of using it; however, they recommend using it less in higher levels. They even show respect to modern teaching materials such as multimedia projector and can list the names of materials needed to teach specific contents. However, they understand this skill only as a tactic to motivate students.

Application of Teaching Aids in Instruction

The use of teaching aids facilitates learning objective by assisting teachers in segregating instruction. Using aids such as graphs, charts, flashcards, videos, projector slide provides learners with visual stimulation and an opportunity to access the content from a different point. This gives each learner an opportunity to interact with the content in a way which allows them to comprehend more easily. Materials should be inter-linked by which learner can acquaint him with the materials. The materials should be based on the experiences and realities which should be related to the topics and it should be appropriate for learner to make sure of their involvement [7].

The health educators were asked how they used teaching aids inside classroom, how they linked different aids to the subject matter and to what extent they generally mixed up varieties of aids. It was also inquired how they used local materials in teaching and to what extent they were able to engage students towards learning through the aids.

One of the teachers from Chitwan illustrated that he did not hesitate to use educational materials from the traditional means to the advanced technology one. He further said, *"Models, charts, contents of the library etc. can be used as teaching aid. Projector use is a new innovation. We can also make students utilize the internet if available. But it's not possible here in our campus. Do not say stuff if you have no access to these".* A teacher from Bhaktapur also agreed the point that teaching aids are used very

less in higher classes. He accepted that teaching materials are the tools to handle the content in a simple and effective way.

On the other hand, still some teachers were there who were theoretically and practically strong in using teaching aids. Teaching aids prove to be a formidable supplement for teachers when the reinforcement of a skill or concept is necessary [8]. Not only do they allow students more time to practice, but they also present the information in a way which offers students a different way to engage with the material.

"Different teaching materials depend on the subject. Some topics may be completed over a short time; however, some subjects need much time have to be given. Some items may require more time for preparation. I use this item per their nature. As local materials, I use the materials that are found in the environment outside and support aid to the teaching. For example, the hospital is located near the way. I take students there to offer them real learning. I send them to community surveys and they prepare a report on every field trip to take action together on community surveying. I ask them to make reports about family sanitation" (a male teacher in Dolakha).

Classroom observation in Bhaktapur and Kathmandu proved that multimedia projectors are widely used in these places. It was found in FGDs too where the teachers of Kathmandu favored it as a proper material. A female teacher in Bhaktapur said she had been using projector very often but the local materials are used rarely in college level. She argued that projector was mostly used since they had to deliver a lot of contents in a limited time. This also helped them to finish course in time. This was supported by other teachers of the campus. *"I usually use multimedia presentation through the projector".*

Nevertheless, the teacher's planning of effective learning activities will be easier, less time consuming and often vastly expanded in potential scope when they know precisely what type of materials are available to them and when to draw upon them [9]. For some time now, there have been predictions that new teaching and learning technology would replace teachers, textbooks and even schools. It was also anticipated that the major method of learning by 2000 would involve the use of modern technology like computers at all levels and in almost all subject areas [4].

However, many teachers raised the issue that very few teachers in general use any teaching material in health education. They further added that teaching materials were used to some extent in the topics like anatomy and physiology only.

"The projector is used almost every day. Except it, other local materials are used very less. If such materials could be used, we would have been successful, but those are hardly practiced. In fact, I don't use any teaching materials at all. Theoretically we say to use it, but we do not implement the theory" (a male teacher in Bhaktapur). He further gave illustration why teachers in Nepalese campuses did not use teaching aids as follows:

"Due to numerous factors the teaching materials are not used

in practice. Firstly, the campus should provide the required teaching material to the subject. Suppose if I draw poster chart and picture, the question arises who will be responsible for the expenditure? The matter also rises that what one gains while using teaching materials and what another loses while not using them. There is no record system of used materials in campus. Next, there is no punishment system to them who do not use teaching materials. So, there is not a good environment to use teaching materials."

Teachers were found theoretically known to prepare local and other teaching aids but not using them inside classrooms. One of the teachers was found to teach both science and health education. According to him he used fewer materials in teaching health than in teaching science. This is a dubious context.

In observations, most of the teachers were bare handed in terms of teaching aids. A few teachers were found using laptops but that was not attached to a projector. It was used like a book by a female teacher in Bhaktapur. She frequently looked into the laptop and read whatever was there. She did not show anything to the students from the laptop. In 40 to 50 minutes duration of observation class, neither teacher used any additional teaching aids like chart, poster, pamphlet, model, flash card, etc. It was even not found any of the teachers using the projector.

In interviews, it was claimed that this was the most used materials, which seemed to be even false in observation classes. It was later confirmed with the informal discussions with the students. The students of Bhaktapur said the projector was seldom used, however, it was found nil in Kathmandu and Chitwan.

Critics comment that the teacher training had primarily helped in bringing change to the size of the paycheck of the teachers instead of behavioral change related to teaching and the learning environment [10].

The classroom teaching was earlier dominated by the lecture method of teacher and there were some essential aids like chalk, duster and blackboard in the classroom. Teaching learning materials were hardly used in the classroom. The teacher had little or no sensory or audio-visual material to supplement his/her oral teaching [11]. The Teaching learning materials now are being designed to disable the monotonous learning methods. These Teaching learning materials made a shift from response strengthening to knowledge acquisition for construction of knowledge. In this context, a teacher provides an environment where any student can construct knowledge by interacting with their physical and social environment. A teacher should always think about their students before providing teaching learning materials. A teacher should identify the need of developing new teaching and training materials. Teachers can classify their materials according to the need and requirement of students.

Thus, it can be concluded that the use of teaching aids is a matter of theory, not practice to many teachers. Health educa-

tors at central level were found more dependent on multimedia projector. Despite a few teachers in out of valley, most of them were using no any material in bachelor and master levels. There was found no any diversity in use of teaching materials and engagement of students. Although projector and laptops were used, the linkage to the subject matter was not cared. The diversity was not maintained. Not a single teacher was able to engage the students towards teaching-learning. Teachers though reflected good knowledge; they did not execute the knowledge into practice.

Reasons for not Practicing Learnt Skills of using Teaching Aids in Classroom

Regarding the case of not using teaching aids inside classrooms, teachers showed to various problems as cause. Their views represented a range of problems in curriculum design, monitoring by the authority, teaching loads, absenteeism of students and teachers' professional preparations. For example, one of the teachers in Chitwan said, "*In fact, the weightage of the course and time period of the University is not enough for utilizing the skills we have learnt. If we were able to employ the skills, it would help to increase pass rate of students also. It would be the matter of pride and happiness to the teachers too, which we are unable to achieve.*" It was also found in interview with the teacher of Dolakha who said, "*The content is too much and the time is limited. Loads of contents must be delivered by a teacher in a short period of time to the students who are habituated to the traditional fashion of learning.*"

In addition to the problem in curriculum and course weightage, another teacher indicated the reason of not practicing modern teaching skills well due to the students' irregularity in classrooms. "*Students do not attend the classes regularly. How can we practice modern skills when sometimes classes are totally empty?*" (a female teacher of Bhaktapur).

A teacher from Chitwan indicated three major causes of not using modern teaching skills inside the classroom as more teaching loads, lower payments and student's indiscipline in the campus. He claimed that:

"Remuneration that the health educators are getting is too low in comparison to other professions. Most of the teachers in community and private colleges have to rush from one to another college in search of income. In addition to this, the courses are also there to be finished on time. The best way to finish the courses on time is to teach, teach and teach."

In consensus to this opinion, another teacher from the same district said:

"There is a traditional way of thinking that if the teacher gives a note then he/she is a good teacher. College administration too expects us to anyhow finish the course on time.

Innovation, change and modernization in teaching are only

found in pedagogy books. We continue with this activity and do not apply whatever learnt in our training because we are bound to be so by the situation. Although it gives us some inner impatience but we do the same.”

A teacher in Dolakha illustrated the lack of resource materials, lack of time, and the environment as the factors responsible for not practicing the learnt skills in real classroom situations. The massive earthquake of 2072 BS compelled them to have teaching learning on the ground because the buildings were damaged and were not suitable for staying inside. He said:

“The students after the earthquake are neither enthusiastic to learn nor they are punctual and regular in the classes. They are less aware and keen to the study. If we were able to use all the known information and principles, we would have been satisfied with ourselves. There are many problems in teaching. Knowledge, skills have become a little bit light, obscure and dull.”

The perception of a male teacher from Bhaktapur who earlier did not show any sign of dissatisfaction on not using the teaching aids inside classroom is worth sharing here because he also raised some causes for it. He said as follows:

“There are many aspects for not being able to practice the skills learnt while teaching in the classroom. The first is the irregularity of the students. It is also the matter of class management. The motivation of the teacher is another great factor. It does not bring any difference if you practice learnt skills or not. Being unable to practice these skills makes me think that I am lagging behind.”

Ultimately, the teacher also realized that his professional skills are lagging. On the other hand, one of the teachers from Kathmandu asked why he should use teaching aids, when it could be easily done through conventional teaching. He argued as following:

“What is the difference in treatment by the campus management for putting extra effort into the classroom? Who is responsible to differentiate the teachers on the basis of whether one uses modern skills or not? There is no any reward or

punishment system for any such thing in our education system. So, I too do not take any extra burden when it is not addressed or recognized by anybody.”

This statement represented that some teachers had poor professional preparation because a professional teacher continues with progressive ideas and practice even for the sake of their individual practice and growth. However, whatever they raised should also be addressed because sometimes it destroys teachers' energy to be innovative when nobody recognizes them for what they are doing. TU and campus authority should closely supervise who is doing right and motivate them. Teachers pointed to the problem in curriculum and management roles too that must be considered for improvement.

4. CONCLUSION AND IMPLICATIONS

There is a very poor state of using teaching aids among health educators in Nepal. Not a single teacher uses any material to engage students towards teaching learning. Some use projectors which are also used as a reference book by the teacher. Teachers know the need and importance of using teaching aids but do not practically implement them inside classrooms. Local materials are also very rare and lesson plans are only in the theory. Health educators in the teacher training institutions are themselves either unknown or do not use teaching aids and instructional materials as expected due to the personal and institutional causes. It seems that health educators have an elapse of the knowledge as well skills of using teaching aids inside classrooms.

The learnt knowledge about teaching aids is not practiced inside classroom due the teacher's incompetency: however, they think it is due to poor curriculum design, lack of monitoring and evaluation and motivation by the authority, absence of materials, heavy workloads and absenteeism of students. Proper monitoring, evaluation and motivation by the campus authority and the Dean's office are necessary. The future health educators are prepared without adequate examples presented by their teachers. Teacher training program of TU must be revisited and improved. One of the fundamentals of teacher education programs 'use of teaching aids' must be renovated among the health educators through authority level intervention and reinforcement on using the materials inside classroom.

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