

## Perceptions of Student-Centered Learning in Teacher Training College in Laos Nouaneindaou MOUACHONGTOUA \*

*Graduate School of Humanities and Social Sciences, Hiroshima University, Japan*

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### Abstract

\*Correspondence: Khangkhay  
Teacher Training College,  
Lao PDR, Tel:  
+856 20 59939245, Email:  
[nouaneindaom@gmail.com](mailto:nouaneindaom@gmail.com)

Today education is focusing on various teaching approaches, teachers should have familiarized with various effective approaches and ideal teaching method plans to bring order and productive learning back into the classroom activities. Increasing teachers' quality is the major strategy of the education strategic plan to meet the education goal, Education Strategic Plan (2020-2025). Ministry of education must strengthen various methods in teaching to promote and adapt to the rapid changing educational environment. Therefore, the purpose of this study investigates science teacher trainers' perceptions of student-centered learning in teacher training college in Laos and identify the challenges of practicing student-centered Learning during teaching activities.

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The study was conducted three teacher training colleges in Laos. The purposively selected approach was used to select teachers who teaching in Biology, Physic and Chemistry. One hundred science teacher trainers participated in this study. An online questionnaire was designed to collect data and distribute through an online survey platform, and post-interview was conducted further explain the quantitative findings in-depth. Descriptive statistics were applied to examine the teachers' perceptions toward student-centered learning and the challenges them from practicing student-centered leaning in teaching activities.

Findings indicated that teachers have favorable perception toward the practicing student-centered learning. Teachers were aware of the usefulness of student-centered leaning, and they are willing to use student-centered learning in their teaching activities. However, science teacher also facing with some challenges in their teaching with student-centered learning like heavy workload and lack of time. Some teachers were not confident in their competencies in using and teaching the student-centered approach efficiently and effectively. Therefore, teacher also perceived that using student-centered learning increased their workloads.

**Keyword:** *Perceptions, Student-centered Learning, Teacher Training College*

## 1. Introductions

As we enter the 21st century, human resource development is still essential in contributing to economic and social development, especially education. Education is also a necessary part of human resource development. fourth goal of SDGs, which is quality education for sustainable development goal (SDGs), ensures inclusive and equitable quality education and promotes lifelong learning opportunities. Currently, Policy of Laos government developing education; as Education and Sports sector Development Plan (ESDP) emphasizes Laos said, by 2025, there is an opportunity to enhance the quality of education, science, and technology (ESDP, 2011).The ministry should train or enhance teacher ability because. Teachers' role is still vital in developing countries. Teachers should have an accurate knowledge of learning mechanisms and skills in using effective learning techniques, such as learning collaboratively. The teaching process is a significant step; teachers should apply multi-teaching methods to bring appropriate and productive learning back into the classroom.

Education importance and plays a significant in developing the country's credentials to develop people physically, mentally, and intellectually into perfect human beings to live happily with others (Kangkhai teacher training college report, 2013). Laos is a developing country, and its education system is still developing in various aspects, such as the curriculum. According to Hirosato and Kitamura (2009), The curriculum is the most important thing, and teachers should have adequate skills to adapt and apply the curriculum to solve the needs of students. In addition to comparing students' success in taking exams, the curriculum should focus on students' ability and learning outcomes. The ministry of education of Laos is working to develop the country through human resource development. The ministry must provide human resources with higher education knowledge and

ability in any field who will return to lead and build their nation in the future. The government should focus on supplying qualified resources.

Teacher training colleges, where creativity and strong resilience are born in students to become future teachers (MOES, 2018), and Teacher training college institutes have been performing the role on the multi-tasks to enhance education in quantitative and qualitative increasing. In Laos, the target of education is to improve the progress of the education system to build high-quality capacity for Lao people in case of behavior change and intelligence, which will be able to compare to the global standard. Nowadays, technology has extreme effects on human life and education, as well.

Since 2000, the policy of teacher training education has been clearly declared on the evolution plan to improve the quality and quantity of education here in Laos. (Strategy plan,2006-2015) inside the key to ensuring the quality of education are the teachers. Therefore, the require meant is to have expert teachers who have good knowledge and cleverness to reflect on major field to apply more student-centered and teacher-centered method instead of teacher-centered one. Teaching-learning performance in Laos shows that no one has studied on teaching-learning by using the student-centered approach. In contrast, other countries have studied and figured out that learner-centered strategy brings up efficient results.

Since the project of teacher development and strengthening (TTEST) has processed and finished the action. It carries out good outcomes for teacher training institutes which work on the roles and status of teachers curriculum, roles, methods of teaching and professional strengthening, including upgrading and training for new approaches, action research so that research productivity in the teacher training institutes has changes, positively however, the illustration of output satisfaction and the way of teaching of instructor compared to the in local, regional and global scale show that teacher in

general and especially in teacher training colleges are not able to perform the action is because of some factors like factor knowledge and ability, real experience, skill of teaching the patient of practical, and facility support consequent the theme of teaching plan (Luagphabang, 2013) is the approach and establish when attending the teaching training in Japan and then is adapted to apply for improving teaching to achieve good achievement and make change constructively at Khangkhay.

Therefore, this study investigates science teacher trainers' perceptions of student-centered learning (SCL) and identifies their challenges in practicing student-centered learning during teaching activities. This study will respond to the following questions: 1. How do science teacher trainers perceive student-centered learning? 2. What challenges do science teacher trainers face in practicing student-centered Learning?

## **2. Methodology**

### **2.1 Research site**

This research was conducted in teacher training college education at three provinces, Khangkhay Teacher Training College (KTTC), Bankoen Teacher Training College (BTTC) and Luangphabang Teacher Training College (LTTC).

### **2.2 Population**

The target population for this study was the science teacher trainer's from KTTC, BTTC and LTTC, there were 100 participants from three subjects in science, who train the biology program, physic and chemistry (21 participants from KTTC, 37 participants from BTTC and 42 participants from LTTC).

### **2.3 Sampling**

Consists of teacher training college from three college, who teaching in Biology, chemistry and physic. In total, where 110 science teacher trainers met the criteria and 100 out of 110 teachers, 12 science teachers (three from each teacher training college and one from each subject within the questionnaire

respondents) were selected based on gender balance and science teacher who use or do not use student-centered learning in their teaching and who facing the difficult thing in their teaching activities for post-interview to further explain the finding in-depth.

### **2.4 Research instruments**

Creswell, (2019) suggested that quantitative data of survey is a popular form of measuring negative and positive towards education topics. therefore, the research used the questionnaire as the main instrument to quantitative data. It was divided into three sections: (1) background information, (2) science teacher trainers' perceptions of student-centered and (3) challenges preventing science teacher trainers facing in their teaching. Used five Likert as 1. Not at all 2. Very little 3. Somewhat 4. Much 5. To a great extent and Strongly Agree (=5), Agree (=4), Neither Agree nor Disagree, (=3), Disagree (=2), and Strongly Disagree (=1). Additionally

### **2.5 Reliability**

According to Cronbach (1984), Cronbach's alpha or coefficient alpha is used to measure the internal consistency of the questionnaire. the Cronbach's alpha values for all constructs in the questionnaire exceed over .60, which is considered the acceptable level of Reliability (Hair et al. 2006). The third section was designed to explore the perceptions of science teacher trainers in three teacher training colleges toward student-centered learning. The alpha values for each construct (Teaching methods and strategies, Goals, and Objectives, Students' involvement in the educational process, Assessment, Students' roles, Teachers' roles, Teaching outcomes, and Teaching environment) were (.540, .827, .822, .812, .829, .812,.883, .788 .879, and .947 respectively).

### **2.6 Data collection procedures**

Since the COVID-19 pandemic affected the way people interact and a limited time of the researcher have difficulty to travel across the country. for this reason, this survey was

conducted online. According to Crewell and Guetterman (2019), the advantage of using the digital method for collecting the data is that the survey can be designed to avoid invalidate response for example it can be set to fill in the first answer before proceeding to the next step or next question and the question that requires a number is not allowed to input text.

Therefore, the invitation of the questionnaire was mainly sent to the participants through Face book messenger. In addition, some participants were informed through Line and email.

## **2.7 Data analysis**

Used the IBM SPSS version 26 for analysis guidebook and created by Hinton et al (2004) to deeply understand how to operate the data analysis procedures read and interpret the data. The collected data were analyzed with descriptive statistics (Frequency, Mean, Standard Deviation), Factor analysis, Cronbach's alpha, T-test, and One-way analysis of variance. Creswell and Guetterman (2019).

## **3. Result**

### **3.1 Teacher perception on student-centered learning of eight components**

Based on the results of survey data, science teacher trainers reported that they have a general understanding of the importance of the eight components of student-centered learning. However, there were variability's among the individual concepts. The following categories were rated from high to low regarding understanding as Students' involvement in the educational process was the lowest and Students' roles were the highest. (Table 1)

### **3.2 Teacher trainers' challenges on student-centered learning**

The challenges sciences teacher trainers face in student-centered learning are I heavy workload and lack of time. The 100 responses scored a mean score of 4.19, a standard deviation of 0.84 in I heavy workload item and mean of 4.14, standard deviation of 0.85 in Lack of time question. (Table 2)

## **➤ Summary of findings**

The demographic results showed that participant in this study have various demographic background regarding college, sex, educational levels, teaching experiences and fields of teaching. The results also showed that much a few teachers perceived well about student-centered learning, only some teachers do not. As for teachers' perceptions towards student-centered learning showed positivity. in eight domains of student-centered learning base on the data of survey. However, the perception of science teacher trainers in a practical way of using student-centered learning lab and system seems to be challenge for teachers as they found it difficult to get familiar and get long time with it.

## **4. Discussion**

RQ 1: How do science teacher trainers perceive student-centered learning?

This is the first research question which section discusses the results based on the data resulting from the questionnaire survey, and some comments. Salma Al- Humaidi (2015), identified of eight domains (Teaching methods and strategies, Goals and Objectives, Students' involvement in educational process, Assessment, Students' roles, Teachers' roles, Teaching outcomes, and Teaching environment). The results show that the participants in a survey inquired about their perceptions regarding the eight domains. Overall, the teachers who participated in the survey had a high- level of perception of student-centered learning domain in the classroom. The results of the data analysis of teachers' perceptions of student-centered learning showed a mean score at 4.28 and a standard deviation at 0.44, indicating that the participants had overall perceived well of student-centered learning, and the overall perception of teachers on student-centered learning was positive.

The findings for each domain of student-centered learning. The domain of student's role and teacher role's use appeared highest positive

with a mean at (4.51 and 4.43), whereas the domain of Students' involvement in education and process and Assessment with the lowest the mean at (4.02 and 4.3), Although it is classified as a little low mean group if compared with other domains. it's also the high perception of the teacher. Almost all science teachers believed that student-centered learning was useful, with the ability to improve teaching and learning at the teacher training college in Laos. Also, most teachers expressed willingness to use student-centered learning in their teaching activities class. These findings support the results of previous studies Tebabal & Kahssay (2011); Granger et al. (2012); Abderrahim (2020) & Ernest (2012) they concluded that teachers have a high positive perception of practicing student-centered learning as a teaching-assisted technical for improving their instruction and student learning and had a good positive idea.

If compare eight domains in section one and nine questions about challenge in section two with gender, colleges, education level, teaching experience and subjects of teaching. For the section two perception related with question one. Teachers' perception of student-centered learning by gender and by education degree category is not different. in terms of college is not different too except for domain seven (Teaching outcomes) and domain eight (Teaching environment). BTTC seemed to have a higher perception of teaching outcome than what KTTC does  $p < .05$ . There is also a significant difference between BTTC in terms of Teaching environment  $p < .05$ . All TTC in Laos is the same system, if look at the location BTTC's location in the city makes students have a more comfortable environment such as a laboratory, library more books, and students can join more events or activities with communities. students have more opportunities to learn and exchange with them and For Teachers' perception of student-centered learning by teaching experience divides. it's different into 5 domains except domains 3, 6 and 8. The mean score of assessment of more than 10 years is

higher than the other few years of experience. In most domains, more than 10 years teaching experiences indicated a higher perception of the domains of student-centered learning than a few years teaching experiences teachers.

For in term of teacher perception of student-centered learning by the subjects' division are not different except for domains one and eight the mean score of assessment of chemistry course is higher than physic course. There are some colleges with more students and classes in chemistry courses than in any other course, especially the physics course. According to Khangkhay and Luang Prabang teaching training college report (2020) in KTTC and BTTC chemistry courses had 2 class per 12+4 system and Physic had 1 class course per 12+2 system. Also in chemistry, many teachers who have graduated from different countries. teacher will have more experience for share and discussion in their work teaching.

RQ 2: What challenges do science teacher trainers face in practicing student-centered Learning?

This is the second research question which section discusses the results from the questionnaire survey, and some comments. Tawalbeh & AlAsmari (2015) identified of nine questions (I heavy workload, Lack of time, Lack of knowledge about learner-centered instruction, Lack of clear curriculum objective and rules, Lack of appropriate teaching environment (seats are fixed not movable and Crowded classes), Lack of resources e.g. library, spaces, lab, I Lack training\orientation on student-centered learning, Students' attitude toward student-centered learning, and My attitude toward learner-centered instruction). The results show that the participants in a survey inquired about their challenge regarding the nine questions. Overall, the teachers who participated in the survey had a high- level of challenges of using student-centered learning. The results of the data analysis of teachers' perceptions of student-centered learning showed a total mean score of 3.63 and a standard deviation of 0.77.especially,

the results revealed that I heavy workload, lack of the time and Lack of knowledge about learner-centered instruction is the highest score by the following questions were rated from high to low. These findings aligned with other studies, mainly in developing countries, Kelli & Leanna (2004); Baeten et al. (2010); Qutoshi & Poudel (2014) & Sablonniere et al. (2009) explained that preparing a student-centered learning course requires a lot of time than preparing a traditional class course. Instructors must create the syllabus and all teaching materials in practicing on lab such as assignment, activities, and examination. In addition, instructor need to spend more time on the ongoing technical support for their students. these might relate to the result of the teachers responded on the survey that they did not have time to develop teaching materials for activities and as can be seen from comments:

*I try to teach by applying practice along with theory, but I think Not enough teaching hours compared to the lesson contents Because I must complete teaching the lessons according to the curriculum and a semester plan”*

*In addition to teaching, “I also have other responsibilities: meeting, training, school event, guide final year students for practice at school” (Participant 1)*

In term of compare teachers' challenges with gender, college, education level, teaching experience and subject of teaching:

For gender division not different except RQ 9, The mean score of males is higher than the female in this RQ, seem like male indicated a more challenge of the RQ 9 than female teachers. For subjects' division not different but for colleges divide not different too except RQ 1, 7 & 9. Laos has eight teacher training colleges. they are following same rule and same system. if look at the location BTTC's location in the city makes students have a more highly competitive and more events in college, and many students come from many provinces, that is BTTC facing more challenges than KTTC. for Teachers' challenges of student-centered

learning by education degree divide not different except QR 1. Bachelor seemed to have a more strongly agree with of the challenges I have heavy workload than doctor does  $p < .05$ . Base on comments Bachelors' teacher said:

*Feel like, I'm a little busy with my class teaching, because I have much class teaching per week, that why I'm have not enough time to prepare activities for practicing.*

Teachers' challenges of student-centered learning by teaching experience divide not different except RQ 1, 2 & 8. The mean of 1-3 years is higher than more than 10 years. Meaning few years' experience have more challenges than many years' experience. as the comment

*I don't have confidents to teach by using student-centered learning, seem like:*

*Participant 1: “My students are not keen on researching new knowledge beyond the materials me provided in the classroom”*

*Participant 2: “I think student-centered learning provides students with challenges and opportunities to explore and enhance their learning”*

However, teachers indicated that students were not keen to study in this mode of learning. Some of the reasons may be that teacher lack competence and expertise in student-centered pedagogy and course design, which negatively affect student learning and engagement.

## **5. Conclusion**

The first question addressing question the perceptions of Laos college, this study showed that they had a high perception of student-centered learning. the teachers' perception of student-centered learning. more specifically, the teacher-rated their degree of knowledge for each domain in the following decreasing order: Teaching methods and Strategies, Goals and objectives, Students' involvement in educational process, Assessment, students' role, teachers' role, teaching outcome, and Teaching environment. it was shown that Laos science teacher trainers have the highest rating for students' roles, indicating that they used this

student-centered learning domain the most. However, in general, it seemed that the teachers tried to implement all the domains, to a great degree. Interestingly, when comparing the level of perception to the level of student-centered learning, very domain go with high scores of the mean and SD.

The second question addressing question the challenges of Laos colleges, which aimed to examine how science teacher trainers face challenges utilized with nine questions. Although, the data result of section one found science teacher trainers perceived a high perception of student-centered learning in eight domains but seems like they are also facing challenges. Most teacher strongly agrees with the question (I heavy workload and lack of time). The comments have come from teachers' challenges that using student-centered learning increased their workloads. Teachers still pointed out that they were not confident teaching student-centered learning course by themselves. teachers claimed that they need to be training more from experts. Additionally, there was a lack of cooperation from students and support enough from the campus.

### Recommendations

In this study was limited to three teacher training colleges from different locations in Laos. The study was also limited to teacher training college who teaching in science which field of biology, physic, and chemistry in 2021-2022 and the results of this research were based only the quantitative research analysis and follow-up interview some participant for explain deep only.

Therefore, the results generalization was limited to only college and science teacher trainers at three teacher training college. Other stakeholders and education levels were not included in this study due to the limited time and resources of the study. Future studies can explore the different perceptions among such as social sciences teachers, English teachers and mathematics teachers or students to compare

and gain a deeper understanding and should be conducted quantitative research (collecting videos of lessons to observe) how teachers practice student-centered learning.

Additionally, to improve the student-centered learning implantation in Lao higher education institutions, policymakers, college' leaders and other stakeholders should have clear policies with good strategic action plan, detail guidelines and a complete organizational structure.

### 6. Conflict of Interest

We certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

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**Table 1: The mean and standard deviations of the 8 domains of student-centered learning**

No	Domains of student-centered learning	Mean	Std.Deviation
1	Students' roles	4.51	.50
2	Teachers' roles	4.43	.53
3	Teaching outcomes	4.35	.61
4	Teaching environment	4.16	.57
5	Teaching Methods and strategies	4.13	.42
6	Goals and Objectives	4.4	.52
7	Assessment	4.3	.56
8	Students' involvement in educational process	4.02	.65

**Table 2: The mean and the Std. Deviation of the challenges facing by science teacher trainers.**

No	Items	Mean	Std.Deviation
1	I heavy workload	4.19	.84
2	Lack of time	4.14	.85
3	Lack of knowledge about learner-centered instruction	3.65	1.02
4	Lack of clear curriculum objective and rules	3.39	1.11
5	Lack of appropriates teaching environment (seats are fixed not movable and Crowded classes)	3.38	1.17
6	Lack of resources e.g., library, spaces, lab	3.44	1.28
7	I have Lack of training\orientation	3.68	1.07
8	Students' attitude toward student-centered learning	3.78	.83
9	My attitude toward learner-centered instruction	3.01	1.45