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Self-Perceived Teaching Competence and Extent of 21st Century Learning Skills Integration in the Alternative Learning System

Sergio Arrago Matugas Jr.¹, Purita T. Baltazar¹

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Corresponding author:
Sergio Arrago Matugas Jr.
Biliran Province State University
Philippines
E-mail:
sa.matugasjr@bipsu.edu.ph

Reviewing editor:
Dr Jaymund M. Floranza
Associate Professor
Catanduanes State University
Philippines

¹Sergio Arrago Matugas Jr.
Purita T. Baltazar
Biliran Province State University
Philippines

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Abstract: The study aimed to determine the correlation between the self-perceived teaching competence and extent of 21st century learning skills integration among teachers in the Alternative Learning System at three municipalities of Naval, Almeria, and Kawayan in Biliran Province. Using survey-correlational method findings show that majority of the teachers were young, married, female, Bachelor's degree holders specializing in General Education. They have around three years of teaching and have attended trainings. The student-respondents were adolescents, married, male, and poor. The teachers perceived themselves as experts and the 21st century learning skills was integrated as perceived by the students. The level of self-perceived teaching competence was significantly correlated to the extent of integration. Based on this finding, the Functionalist Theory which asserts that the teachers have specific function in the society and that is to serve as agents of legitimate knowledge transmission and to provide children with certain skills needed for the future of the society (Sever, 2012) was significantly affirmed. Also, the Social Constructivism theory also affirmed the role of teachers as facilitators of learning (Lynch, 2016). One of the proposed implementing policies, ALS teachers should hold a diploma/graduate certificate in distance education; this will allow them to further enhance their capabilities as forerunner implementers of the program that offers distance education.

Keywords: Alternative Learning System, 21st Century Learning Skills, teaching competence, Functionalist Theory, distance education

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1.1 The Problem and Its Scope

Rationale

The development of the 21st century skills is among the challenges of education today. Schools both in public and private must focus not just on imparting the basics but equally so on ensuring that students gain a suite of newly



important thinking and reasoning skills (Silva, 2009). Despite remarkable progress in expanding access to basic education, education data in 2016 shows that about half of Filipino students are struggling to complete basic education on time. Statistically, in a recent study, about 3.7 million youth aged 16-24 and 3.1 million young adults aged 25-30 did not complete junior high school and are out of school, which comprises about 23% of those aged 15 to 30.

The Department of Education (DepEd) implemented the Alternative Learning System (ALS). ALS offers an informal education to build human capital from the out-of-school youth and adults.

With the challenge of developing 21st century skills through ALS, the study aimed to determine the ALS teachers' self-perceived teaching competence and the Extent of 21st Century Learning Skills Integration in the classroom.

Theoretical Background

The current study is grounded on the Functionalist Theory and Theory of Social Constructivism.

Related Theories

Functionalist Theory

The functionalist's perspective on education is to have a consensus perspective—examine society in terms of how it is maintained for the common good. It emphasizes positive aspects of schools such as socialization—the learning of skills and attitudes in school. In helping the society to maintain by means of socializing young people into values of achievement, competition and equality of opportunity. Skills provision is also important—education teaches the skills for the economy (Trueman, 2015).

Functionalists also believe that education serves a key component and in the construction of society. Education is one of the most important institutions and plays a major role during secondary socialization. They also believe that without education, society would not be able to continue functioning. It also asserts the school environment is a microcosm of the adult occupational world and it provides children with the certain skills needed for the future in the society.

In addition, functionalists, as applied to the famous analogy between human body and society, posit that society is like a human body that has particular organs with specific functions—in the body, lungs take oxygen, heart pumps blood, veins carry blood interdependently. Any kind of malfunction in one of these will affect the whole system's harmony. In parallel, education as a social institution and as a social organism is fully connected in various ways to the economy, the family, and the political and religious systems. Notably, the needs of the society are always paramount to those of individuals' mainstream. Teachers serve as agents of this legitimate knowledge transmission, which also tantamount as moral models and moral beings for next generations, should constrain themselves with teaching only for societal goods (Sever, 2012).

Social Constructivism Theory

The Theory of Social Constructivism emphasizes that social worlds developed out of individuals' interactions with their culture and society. Knowledge evolves through the process of social negotiation and evaluation of the viability of individual understanding.



Social constructivism is broadly defined as an epistemology that foregrounds the social construction of knowledge through interactive teaching and learning activities in the classroom. It sustains the necessity of knowledge as a product co-constructed by the educators—from classroom teachers to its administration—in meaningful interactions with the learners (Mutekwe, 2014). As a paradigm has the advantage of affording virtually all learners in the classroom with an opportunity to participate in interactive learning activities since it emphasizes teaching and learning that draw from the learners’ diverse socio-cultural backgrounds—promoting learning equity in the classroom.

In social constructivism, teachers and school leaders are facilitators of learning (Lynch, 2016). A social constructivist teacher embraces varied approaches—peer collaboration and teaming, problem-based and real-life instruction, anchored instruction and other methods—that involve not just in teaching but in learning with others as well (Amineh & Asl, 2015).

1.2 Related Literature

Related Legal Bases

The right to education is articulated in Article 26 of the Universal Declaration of Human Rights (UDHR), which emphasizes universality, equal access, and the role of education in promoting respect for human rights and tolerance among social groups within nations. In Article 13 of the International Convention on Economic, Social and Cultural Rights (ICESCR) also emphasizes the right to education to enable all individuals to participate actively in a free society, promotes understanding and camaraderie among all nations and all racial, indigenous or religious groups, and further the activities of the United Nations (UN) for the maintenance of peace. Major regional human rights instruments, the European Convention on Human Rights (Article 2 of the First Protocol), and the Association of Southeast Asian Nations’ Human Rights Declaration in Article 31 (Brown, 2016) similarly recognized a universal right to education.

The landmark declarations paved the way in promoting the rights-based discourse of education. Certain policies were needed to address underlying causes of marginalization such as social inequality, gender disparities, ethnic and linguistic disadvantages, and gaps between geographic areas (Watkins, 2010).

In 1990, the international development community birthed a substantial global education initiative so-called Education for All 2015 (EFA 2015). Its optimal framework for education in a globalizing world provides the impetus for more inclusive and more accessible education. The Philippine government marked its commitment to EFA goals in the EFA assembly in Jomtien, Thailand in 1990 and Dakar, Bangladesh in 2000.

In the first EFA decade (1991-2000), the Philippine government made categorical the urgency of addressing and promoting school attrition through strengthening and building student retention measures and the provision of Alternative Learning System (ALS) that will aid illiteracy and promote continuing education. In 2006, the Philippine EFA 2015 National Action Plan was drawn up with an identified and highlighted central goal: to provide basic competencies to all Filipinos in order to achieve functional literacy for all. Thus, an outcry of no child should be left behind.

The ALS Accreditation and Equivalency (A&E) program performs a crucial yet important role in achieving the goal of EFA 2015, which is the “Universal Coverage of OOSC and Adults in the provision of Basic Learning Needs.”



The Republic Act 9155 (Governance Act of Basic Education) passed in 2001, officially recognized ALS as a supplementary ‘driving-agent’ of formal education. For the past five decades, DepEd significantly operated parallel education systems for youth and adults who did not complete basic formal education. The current incarnation of the ALS includes two core parts, the Basic Literacy Program and the Accreditation and Equivalency (A&E) Programs. The former aims to eradicate illiteracy among out-of-school youth and adults by teaching basic literacy and numeracy while the latter targets people who are functionally literate but did not complete basic education, and offers programs at both the primary and secondary school levels. The goal of the A&E Programs is to equip participants with the information and skills necessary to pass the national A&E examination, which provides an academic written document equivalent to formal school’s diplomas in the elementary, junior and senior high school education. Securing this credential enables ALS students to apply to higher education and training institutions or to jobs that require a high school education (Igarashi, 2018).

The ALS has made considerable progress toward its objectives, especially in recent years, yet it faces several persistent challenges. It attracts solely a fraction of the country’s massive out-of-school population, and outcomes indicators have plateaued. Moreover, the diverse circumstances of participants and potential participants greatly complicates ALS implementation and outreach efforts (Igarashi, 2018).

Twenty-first Century Skills.

In this globally and digitally fast-paced world, all learners need to acquire new skills and knowledge to succeed. The 21st century has seen a major shift in learning goals—formal education sectors in countries all over the world want their young people to be able to think critically and creatively, solve complex problems, make evidence-based decisions, and work collaboratively (Care, Helyn, & Vista, 2019; Saavedra & Opfer, 2012). Opportunities to learn 21st century skills is essential to prepare the students for success in school, work, and life (Ross, 2017). These not only provide a foundation for successful learning in the classroom, but also ensure all students can prosper in a world where change is the only constant and learning has no end.

Hence, to be effective teachers in the 21st century it requires them to make the pedagogical paradigm shift. They change the way they teach in order to be able to prepare their students, not simply to memorize content and to follow instructions given by others, but to develop skills that are in demand in the 21st century workplace; be able to think for themselves, solve problems, work in teams and lead others to succeed (Kivunja, 2014).

It is expected that educational institutions around the world are able to promote 21st century skills to its students through formal education—primary, secondary, and tertiary levels. But it is also a reality that a wide number of the world population are dropouts, out-of-school youth, and even individuals who do not go to formal schooling. Thus, the recent trends in research highlighted the need in evaluating the effectiveness of non-formal education programs such as the ALS program in the Philippines (Tindowen, Bassig, & Cagurangan, 2017).

There are eight 21st century skills every student should acquire. (Hixson, Ravitz, & Whisman, 2012). Critical thinking skills refers to the ability to analyze complex problems, investigate questions for which there are no clear-cut answers, evaluate different points of view of sources of information, and draw appropriate conclusions based on evidence and reasoning. Collaboration skills enable students to work together to solve real-life problems or answer questions, to work effectively and efficiently, and, respectfully in teams, to accomplish a standard goal and to assume



shared responsibility for finishing a task. Communication skills, on the other hand, enable students to organize and reorganize their thoughts, data, and findings and share these effectively through a variety of media as well as orally and in writing. Creativity and innovation skills refer to students' ability to generate and refine solutions to complex problems or tasks based on synthesis, analysis, and then integrating, combining or presenting what they have gained in new and original ways. Self-direction skills indicate that the students will be able to take responsibility for their learning by identifying and classifying topics to pursue and processes for their own learning, and being able to review their own work and respond to feedback and then reflect upon. Global connections assert that the students will be able to understand global, contemporary and geopolitical issues including awareness of geography, culture, language, history, and literature from other countries. Then, local connections pinpoint that the students will be able to apply what they have learned to local contexts and community-based issues. Lastly, Using technology as a tool for learning focuses on the students' ability to manage their own learning in making a broad process that produces products by using appropriate information and communication technologies.

In today's society, we want our learners to enter the world with an understanding of what it takes to be a good citizen—one who can be civically engaged, critically thought, digitally literate, globally aware, and communicates effectively both locally and internationally. This should not only be limited in the framework of formal education but also in the non-formal education of ALS, which is present in the Philippines.

Teaching and Learning

Ensuring that students are learning is the critical and crucial piece, and more teachers and better teaching lie at the heart of any solution to the learning crisis at stake. Recent data show that to achieve universal primary education by 2030, 27.3 million new teachers need to be recruited (Albright, 2015).

It has been said that teachers are critical elements to educational quality because they orchestrate instructional interactions with and between students around academic content, and these classroom interactions—in an ideal and real world—influence student learning (Nordstrum, 2016).

Being a teacher at any level needs a significant quantity of knowledge that fosters quality skill. There is a need to pay attention to the core competencies for educators to ensure that all teachers and others who work in education are prepared to make school a positive experience for students and their families (Zeiger, 2018; Trautwein, 2010). These competencies include: interacting well with students, creating a learning environment, good at lesson plan design, able to use varied teaching strategies, able to assess, able to identify student needs, good at communication, able to collaborate, maintaining a professional appearance, and demonstrating a commitment to the profession. The aforementioned core competencies point out that there should be a positive interaction with all students—difficult students, students who work below grade-level and students whose personalities just grate on a teacher (Zeiger, 2018; Gao & Lui, 2013).

There is a call for the teachers to attend regular professional development sessions—seminars, workshops and the like—to learn new strategies and the latest best practice, as much as possible. By furthering their education and taking part in professional development sessions, educators can continue to improve the quality of the education they provide (Burner & Svendsen, 2020; Jaszczyszyn & Lewkowicz, 2019; Zeiger, 2018; Pineida, 2011).



A meta-analysis, which examined the factors influencing students' learning, found that after genetics, teachers have the greatest influence on students' learning; however, only teachers who have profound pedagogical knowledge with high expectations from all their students and who create positive teacher-student relationships, follow students, and give them feedback can strongly influence students (Hettie, 2009).

Teachers with low self-efficacy can exhibit behaviors such as avoiding activities that exceed their capacities, abstaining from helping pupils who have difficulty learning, spending less effort enriching lessons, and repeating a lesson until students understand it; but, teachers with high self-efficacy tend to enrich lessons with challenging activities, help students increase their success, and pay attention to students who have difficulty learning (Schunk, 2014; Haljoo, 2014).

Related Studies

The study of Holzberger & Kunter (2013) on how teachers' self-efficacy is related to instructional quality emphasized the importance of examining teachers' self-efficacy not only as a cause but also as a consequence of educational processes.

Fabelico and Afalla (2020) in their study on perseverance and passion in the teaching profession, which was conducted in the Philippines, showed that the high level of perseverance of teachers' actions affects the high level of self-efficiency of teachers in responding to needs, inspiring students and dealing with change.

The study conducted by Alismail & McGuire (2015) on 21st century standards and curriculum revealed that teachers' play a significant role in helping students develop 21st century skills by applying methods that increase students' abilities. They use innovative strategies and modern learning technologies that help integrate cognitive and social skills with content knowledge as well as increase student participation in the learning environment in order to promote these future skills.

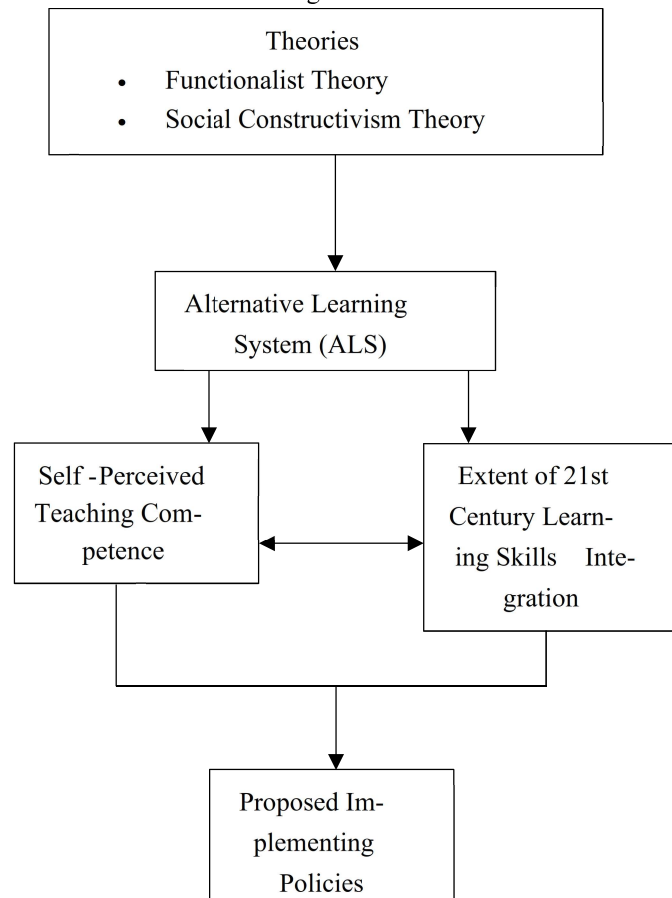
Moreover, a study conducted by Kivunja (2015) showed that equipping the students with the different 21st century skills will help not only to make them better educated individuals but also better citizens who will be able to make a greater contribution to commerce and to civil life in the Digital Economy of the 21st century.

It is further supported in the study conducted by Stehle and Burton (2019) on the developing student 21st century skills revealed in the lesson plans that ICT provides tools to support communication and reflection which leads to knowledge construction and real-world problem solving. To further develop knowledge about how 21st Century skills addressed in lesson plans help to support student work.

The theories, legal bases, literature, studies, and concepts relevant to the current investigation were used to formulate the theoretical-conceptual framework discussed in the next page.

Theoretical-Conceptual Framework of the Study

Figure 1



The study was anchored on the Functionalism and Social Constructivism Theories in constructing the theoretical-conceptual framework of this study on self-perceived teaching competence and extent of 21st century learning skills integration in the Alternative Learning System to propose implement policies. With this framework, the teachers' self-perceived teaching competence and extent of 21st century learning skills integration were looked into towards ALS implementing policies. It served as the blueprint in answering the problems stated below.

Statement of the Problem

The study looked into the teachers' self-competence and extent of 21st century learning skills integration in the teaching strategies in the Alternative Learning System (ALS).

Specifically, it aimed to answer the following questions:

What is the socio-demographic profile of the teacher-respondents, in terms of:

- age;
- sex;
- civil status;



- highest educational attainment;
- specialization;
- length of service; and,
- number of training attended?

What is the socio-demographic profile of the learner-respondents, in terms of:

- age;
- sex;
- civil status; and,
- gross monthly income?

What is the level of the teachers' self-perceived teaching competence?

What is the extent of 21st century learning skills integration as perceived by learner-respondents?

- critical thinking skills;
- collaboration;
- communication;
- creativity and innovation;
- self-direction;
- making global connections;
- making local connections; and,
- using technology as a tool?

Is there a significant relationship between the level of the teachers' self-perceived teaching competence and extent of 21st century learning skills integration?

What policies may be proposed to enrich the ALS implementation of Biliran Province?

Statement of Hypothesis

The research hypothesis in this study was tested in its null form and stated as:

Ho: There is no significant relationship between the level of the teachers' self-perceived teaching competence and the extent of 21st century learning skills integration.

Significance of the Study

The results of the study are going to be of great benefit to the following:

the ALS Learners would be the end beneficiary as the center of the teaching and learning. The proposed policies will enhance their way of learning; the ALS Teachers would be given feedback on their teaching-learning and evaluating strategies in enhancing knowledge, skills, and attitude to the learners; the DepEd Biliran Superintendent would be provided with information about the teachers' self-perceived level of teaching and extent of integration of 21st century learning skills of the Alternative Learning System. The results will enable the Division Superintendent to improve the teaching and learning of the Alternative Learning System; and the ALS Supervisor would be helped in evaluating the quality of teaching rendered by the ALS teachers and the extent of integration of 21st century learning skills to the ALS learners.

Scope and Delimitation of the Study

This research study aimed to determine the relationship between teachers' self-perceived teaching competence and extent of integration of 21st century learning skills in the classroom. This investigation had two groups of respondents



namely: (1) the learner-respondents; and, (2) the teacher- respondents

The learner-respondents were officially enrolled in the ALS Accreditation & Equivalency (A&E) Program. The teacher-respondents were the ALS teachers of the learner-respondents. The number of learner-respondents was based on regular attendees of each ALS teacher from their respective community-learning center (CLC).

The researcher limited the conduct of the study among Alternative Learning System learners within the Cebuano-speaking municipalities in the Province of Biliran; namely, Naval, Almeria, and Kawayan. The output of this study is a suggested policy for ALS.

Definition of Terms

The following are the important terms to consider:

ALS. Alternative Learning System. This is program of the Department of Education which offers informal education to cater the out-of-school youth and adults.

ALS teachers. The licensed basic education teachers who teach in the Alternative Learning System.

Integration of 21st Century Skills in Teaching. The use of 21st century skills in their teaching strategies. This is measured through the self-efficacy scale study of Tschannen-Morran & Woolfolk Hoy (2001).

Self-perceived Teaching Competence. The teachers' self-assessment of their teaching abilities. This is measured through an adapted questionnaire formulated by Hixson, Ravitz & Whisman (2012) of West Virginia.

3.1 Research Methodology

This section presents the research design, research environment, research respondents, research procedure, data gathering procedure, research instrument, research ethics consideration, and statistical treatment.

Research Design

In this research, a survey questionnaire was used to describe the teacher-respondents in terms of their self-perceived teaching competence. Another questionnaire was given to determine the extent of 21st century learning skills integration in the classes as perceived by the learner-respondents.

After the survey, a correlation was done to determine the relationship between self-perceived teaching competence and the extent of 21st century learning skills integration. Correlational method is a type of nonexperimental research in which the researcher measures two variables and assesses the statistical relationship (i.e., the correlation) between them with little or no effort to control extraneous variables. The two reasons that the research is interested to conduct a correlational study: first, does not believe that statistical relationship is a causal one; second, statistical relationship of interest is thought to be causal, but the researcher cannot manipulate the independent variable because it is impossible or impractical.

Research Environment

The research was conducted among Alternative Learning System learners and teachers within the localities of Naval, Almeria, and Kawayan in the Province of Biliran. Biliran is one of the smallest island-provinces in the Philippines and it is settled within the Eastern Visayas region. An island province, Biliran lies just a few kilometers north of the



island of Leyte. Its capital is the town of Naval and for a time, Biliran was part of the province of Leyte until it became independent in 1992.

The inhabitants of Biliran primarily speak Sugbuanong-Bisaya and WarayWaray. Cebuano, spoken around 57.79% of the population is found principally on the western space of the island, nearest Cebu, whereas Waray-Waray spoken by 40.80% will be found on the eastern portion. Majority of the residents conjointly speak and perceive Tagalog and English.

The economy of Biliran is essentially supported by fishing. Most of its towns, especially Naval, Biliran and Kawayan, have excellent seaports. There are 95 hectares (230 acres) of brackish water fishponds that produce prawns, shrimps and milkfish. Another thirty-hectare (74 acres) of seawater appropriate for seaweed farming and ten (10) more hectares for fish cage culture. Being mountainous, Biliran can support various agricultural crops. The warm lowlands are conducive to palay production and other tropical crops.

Based on the 2015 census, the population of Biliran Province was 171,612 people, with a density of 320 inhabitants per square kilometer or 830 inhabitants per square mile. According to the Census (2015), the literacy rate of Biliran is 98.1%.

Research Respondents

All the ALS teachers, who were officially teaching learners within the different Community Learning Centers (CLC) or schools implementing the program in Naval, Almeria and Kawayan, were included in this study. The researcher used the entire population of ALS teachers in the three municipalities of the Biliran Province in this study as teacher-respondents, and one of the criteria for these teacher-respondents must be handling learners enrolled at the A&E program. Moreover, every ALS teacher must exclusively handle the same set of learner-respondents. All 18 ALS teachers participated in the study. The 150 learner-respondents were the ALS students enrolled in the classes of the teacher-participants.

Research Instrument

This study used two sets of questionnaires, one for the ALS teachers (see Appendix A). and another questionnaire for the ALS learners enrolled at the program (see Appendix B). The questionnaire for the ALS teachers was adapted from the teachers' self-efficacy scale study of Tschannen-Moran & Woolfolk Hoy (2001). The instrument was pilot-tested for reliability purposes with a of 0.9690 Cronbach alpha which indicates a high internal consistency or reliability.

For the learner-respondents, an adapted questionnaire formulated by Hixson, Ravitz & Whisman (2012) of West Virginia was utilized. The instrument consists of a framework that measures 21st century teaching and learning. The questionnaire was originally made for the teachers. The researcher modified the content to make it suitable for the level of the students with the permission of the owner. Since the questionnaire for the students was modified, it was also pilot-tested for reliability purposes with a of 0.9674 Cronbach alpha which indicates a high internal consistency or reliability. Moreover, the instrument used for the learner-respondents were translated to Cebuano to ensure that the ALS student will understand the content of the questionnaire. The 5-point Likert type scale was used; scale range and its corresponding descriptions were as follows:

Level of Teaching Competence

Level	Range	Qualitative Description
Beginner	1 - 1.80	They have a knowledge or understanding of the basic techniques and concepts of the teaching competencies.
Developing	1.81- 2.60	They are in need of help performing the teaching competencies to complete job responsibilities; a little experience has been gained in a classroom or as a trainee on the job.
Competent	2.61 - 3.40	They can successfully utilize the teaching competencies to complete diverse job responsibilities.
Advanced	3.41 - 4.20	They can successfully perform actions associated with the teaching competencies; they are recognized as a resource to others; they can apply the competencies to improve processes and other work outcomes.
Expert	4.21 - 5.00	They can thoroughly and consistently provide guidance, troubleshoot and answer questions related to the teaching competencies, and complete related job responsibilities.

Extent of Integration of the 21st Century Learning Skills

Level	Range	Qualitative Description
Not at all	1 - 1.80	The teacher does not use strategies that promote 21st century skills.
Slightly Integrated	1.81- 2.60	The teacher rarely uses strategies that promote 21st century skills.
Moderately Integrated	2.61 - 3.40	The teacher sometimes uses strategies that promote 21st century skills.
Integrated	3.41 - 4.20	The teacher often uses strategies that promote 21st century skills.
Highly Integrated	4.21 - 5.00	The teacher always uses strategies that promote 21st century skills.

Data Gathering Procedure

After selecting and finalizing the tools for data collection, the researcher visited the ALS community-learning centers personally to request permission from the Superintendent of the Division of Biliran for collecting the necessary data. The details of the study were discussed with the ALS Supervisor, and sought permission from them for collecting the necessary data and the subjects.

Informed consent and assent were secured from the ALS teachers and learners. Before assigning the task, instructions of each test used in the study was made clear. The teacher-respondent survey was conducted online using Google Form. The questionnaire for the learner-respondents were administered in the respective community learning centers by the teacher-respondents. The researcher was not allowed to administer the questionnaires himself because of the quarantine protocol. After the administration of the survey, the researcher retrieved the answered questionnaire from the teacher-respondents. Data gathered was analyzed and interpreted. The proposed policies for enriching the



ALS implementation were then formulated.

Data Management Plan

Participant information are stored on a personal computer protected by a private password only accessible to the researcher. The data will not be distributed to any unauthorized persons. The consent and assent forms are kept in a secure location. The document linking the participants' name with their participation number are kept in a single sheet of paper and are not inputted into computer software. This document will be destroyed five years later.

Research Ethics Consideration

The consent form ensured that participants understood the research process, their contribution, the risks and benefits of the study, and the confidentiality of data.

The researcher ensured a thorough review of the consent form and made sure to create various opportunities for participants to ask questions if they need clarification. In addition, the consent form was translated into Cebuano to ensure that the ALS students understood the content and purpose of the consent form. Participants were provided a verbal acceptance of participation and will sign off on the consent form (See Annex C, D & E).

Statistical Treatment

This study used percentage, weighted mean, and Pearson's correlation to present and analyze the data collected through the survey questionnaire. The mathematical equation for the said statistics were:



- To compute for the percentage of the different demographic profiles, the percentage is used.

$$\% = \frac{f}{n} \times 100$$

Where:

f = frequency

n = number of respondents

- To compute for the level of teachers' self-perceived teaching competence and extent of integration in the 21st century learning skills, the weighted mean is used.

$$WM = \frac{\sum wx}{\sum w}$$

Where:

WM = Weighted Mean
 Σ = the sum of w =
 the weight of each item x =
 the value of each item

- To compute the significant relationship between teachers' self-perceived teaching competence and integration of the 21st century learning skills as perceived by the learner-respondents, the Pearson Product-Moment of correlation coefficient is used.

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Where:

n = number of pairs of scores

Σ_{xy} = sum of the products of paired scores

Σ_x = sum of x scores

Σ_y = sum of y scores

Σx^2 = sum of squared x scores

Σy^2 = sum of squared y scores



4.1 Presentation, Analysis and Interpretation of Data

This section provides the presentation, analysis and interpretation of data on the teacher and learner-respondents' profile, teacher-respondents' self-perceived level of teaching competence, extent of 21st century learning skills integration as perceived by the learner-respondents, and the correlation between teacher-respondents' level of perceived self-efficacy and extent of 21st century learning skills integration as perceived by the students.

The Profile of the Teacher-Respondents

The socio-demographic profile was considered with regards to age, sex, civil status, educational attainment, specialization, number of trainings, and years of teaching experience in ALS. The frequency distribution of teacher-respondents sociodemographic profile is shown in Table 1.

Table 1 also presented the frequency distribution with a corresponding frequency percentage to determine the different demographic variables of the teacherrespondents. There were 18 ALS teacher-respondents.

Table 1 Profiles of the Teacher-Respondents in Terms of the Different Demographic Variables (n=18)

Profile Category		Frequency	Frequency Percentage
Age (years)			
	22-34 (Early Adulthood)	12	66.7
	35-44 (Early Middle Age)	3	16.7
	45-64 (Late Middle Age)	3	16.7
Sex			
	Male	6	33.3
	Female	12	66.7
Civil Status			
	Single	5	27.8
	Married	13	72.2
Highest Educational Attainment		Bachelor's	
Degree			
	Master's Degree	6	33.3
Specialization			
	Pre-school	1	5.6
	Gen Ed	13	72.2
	MAPEH	1	5.6
	TLE	3	16.7
Length of service (years)			
	1-3	7	38.9
	4-6	4	22.2
	7-9	3	16.7
	10-12	1	5.6
	13-15	3	16.7
Number of training attended		1-3	
		5	27.8
	4-6	3	16.7
	7-9	3	16.7
	10-12	3	16.7
	13-15	4	22.2

From Table 1, it can be seen that most of the respondents were in the early adulthood teachers (ages 22-34 years) concurring with the life satisfaction across four stages of adult life used by Medley (1980). While there were equal distributions of early middle age teachers (ages 35-44) and late middle age (ages 45-64).



It was also revealed from Table 1 that most of the teacher-respondents were females, having 66.7% of the population. While the respondents were also asked about their civil status, categorized as single or married. It showed that most of the respondents were married, comprising 72.2% of the population.

The educational attainment was also considered. It showed that the respondents were in the categories of Bachelor's degree and Master's degree. The 66.7% of the population of the respondents earned a Bachelor's degree. Most of the respondents' specialization were in the General Education under the Bachelor of Elementary program. Table 1 also revealed the length of service of the respondents were mostly between 1 to 3 years, followed by 4 to 6 years. This clearly manifested the youngness of service of the teacher-respondents in the program. Lastly, it showed that the number of trainings were mostly within a range of one to three trainings as reflected to the length of service of the respondents between 1 to 3 years.

The Profile of the Learner-Respondents

The socio-demographic profile was considered with regards to age, sex, civil status, and family income. The frequency distribution of learner-respondents sociodemographic profile is shown in Table 2.

Table 2 below also presented the frequency distribution with a corresponding frequency percentage to determine the different demographic variables of the learner-respondents. There were 150 ALS learner-respondents.

Table 2 Profile of the Learner Respondents in Terms of the Different Demographic Variables (n=150)

Profile Category	Frequency	Frequency Percentage
Age (years)		
12-20 (Adolescence)	80	53.3
21-35 Early Adulthood	68	45.3
36-50 Midlife	2	1.4
Sex		
Male	102	68.0
Female	48	32.0
Civil Status		
Single	72	48.0
Married	76	50.7
Widowed	2	1.3
Gross Monthly Income		
Less than ₱11,690	129	86.0
Between ₱11,690 to ₱23,381	20	13.3
Between ₱23,381 to ₱46,761	1	0.7

From Table 2, it can be seen that most of the respondents were in the adolescence learners (ages 12-20 years), comprising 53.3%, concurring with the twelve stages of the human cycle. While it followed with early adulthood (ages



21-35) with 45.3%, and late middle age (ages 45-64) having a 1.4% of the population.

It is shown in Table 2 that most of the respondents were male having a 68.0% of the entire population. While 32.0% of the population were female. Based from the same table that the civil status of the respondents was divided into three categories, namely: single, married, & widowed. It revealed that most of the respondents were married with 50.7% of the entire population. It followed by the respondents with a single status, comprising 48.0% of the population. Lastly, 1.3% of the population were widowed.

In categorizing the gross monthly income of the learner-respondents' family, it was based on the income groups in the income distribution. Based from Table 2, most of the respondents were poor, 86.0% of the entire population, with less than ₱11,690 gross monthly income. While the 13.3% of the population were low income but not poor with a gross monthly income between ₱11,690 to ₱23,381. Lastly, the lower middle income with a gross monthly income between ₱23,381 to ₱46,761 was 0.7% of the entire population.

The Self-Perceived Level of Teaching Competence

The teacher-respondents' self-perceived level of teaching competence were measured through 5-point Likert scales (see Appendix A). Responses in each item were given numerical equivalents according to the type of the statement for agreement or disagreement, whether expressed positively or negatively. Frequency percentages were obtained for a particular level of teaching competence, which has equivalent qualitative descriptions. Table 3 shows the teacher-respondents' self-perceived level of teaching competence.

Table 3 Teacher-Respondents' Level of Self-Perceived Teaching Competence (n=18)

Level of Teaching Competence	Frequency	Frequency Percentage
Expert	14	77.8
Advanced	4	22.2
Competent	0	0
Developing	0	0
Beginner	0	0

From Table 3, it is revealed that most of the teacher-respondents' level of teaching competence are "Experts" and some are "Advanced." Teacher-respondents in the levels of teaching competence as reflected as "Experts" has the highest frequency percentage of 77.8%, this clearly manifests that they can thoroughly and consistently provide guidance, troubleshoot and answer questions related to the teaching competencies, and complete related job responsibilities. While in the "Advanced," with 22.2% frequency percentage, it also reflects that the respondents successfully perform actions associated with the different teaching competencies and are recognized as a resource to others. In general, the respondents were confident that they have the ability to perform the competencies.

The results can also be reflected in the teacher-respondents socio-demographic profile which was presented in Table 1. The teachers' level of teaching competence was in the "Experts" and "Advance" can be justified in the results presented in Table 1 that most of them were at least Bachelor's degree holders and some were Master's Degree holders.

In addition, the teachers had also adequate training which reflected in Table 1 that they engaged and received more than three trainings. The Extent of the 21st Century Learning Skills Integration Table 4 reveals the extent of integration of the 21st century learning skills as perceived by the learner-respondents.

Table 4 Extent of 21st Century Learning Skills Integration as Perceived by the Learner-Respondents

21st Century Learning Skills	Always	Often	Sometimes	Rarely	Never	WM	Qualitative Description*
Critical Thinking	4	104	42	0	0	3.75	Integrated
Collaboration Skills	3	90	57	0	0	3.64	Integrated
Communication Skills	3	59	86	2	0	3.42	Integrated
Creativity and Innovation Skills	0	45	105	0	0	3.30	Moderately integrated
Self-direction skills	0	80	70	0	0	3.53	Integrated
Global Connections	0	46	93	11	0	3.23	Moderately Integrated
Local Connections	0	85	64	1	0	3.56	Integrated
Using Technology as a tool for learning	9	114	27	0	0	3.88	Integrated

Note: * 4.21-5.00 – High Integrated; 3.41-4.20 – Integrated; 2.61-3.40 – Moderately Integrated; 1.81-2.60 – Slightly Integrated; 1.00-1.80 – Not at all

Table 4 indicated that that most of the 21st century learning skills were within the range of qualitative description “Integrated.” The 21st century learning skills with the highest weighted mean of 3.88 for the extent of integration was Using Technology as a tool for learning followed by Critical Thinking with a weighted mean of 3.75. The lowest weighted mean of 3.23 “Moderately Integrated” for the extent of integration was Global connections followed by Creativity and Innovation Skills with a weighted mean of 3.30.

Table 2 showed that most of the learner-respondents were adolescents and early adults. This might be a factor why the extent of 21st century skills integration is high. The learner-respondents may already have the skills like manipulating gadgets, but since they were dropped-out of formal school, these skills were not enhanced. Moreover, they got the chance to engage in the informal education setting through the ALS program and its ALS teachers who helped them strengthen their abilities, skills, and potentials.



In the 21st century, the citizens of the community should acquire the needed skills in order to succeed in this fast-paced world of competitions. Table 4 showed that the extent of 21st century learning skills integration were mostly integrated. This might be an implication of the teachers' guidance to use the strategies that promote 21st century learning skill. It indicated in the Table 4 that among the 21st century learning skills the Using Technology as a tool for learning was the highest followed by the Critical thinking skills. In this generation, the skills to manipulate the advent of technology is highly needed. Moreover, our society is bombarded with misinformation and disinformation that critical thinking should be a requirement in order to be fully informed with factual data and to think in the right way. The Functionalist theory asserts that the role of education is to provide children with skills needed for the future in society. Based on the findings, the ALS program through its teachers have fulfilled the function of providing the students with the skills needed to meet the demands of the 21st century.

In Table 4 emerged that the global connections was the most "Moderately Integrated." It reflected that the teacher sometimes uses strategies that this particular 21st century learning skill. In the ALS implementation, the function of teachers really matters in achieving quality education. Since education serves as a social institution and as a social organism that bridges in several factors to the economy, the family, the political or religious systems, and the society as a whole. Once it will malfunction, it directly affects the whole system's harmony. Therefore, teachers should function as agents of this legitimate knowledge transmission for societal goods (Sever, 2012), Relationship Between the Self-perceived Level of Teaching Competence and Extent of Integration of 21st Century Learning Skills.

To understand the relationship between the teacher-respondents' self-perceived level of teaching and competence and extent of 21st century learning skills integration, the researcher used Pearson Product-Moment of correlation coefficient using the variables of teacher-respondents' self-perceived teaching competence and the extent of integration of 21st century learning skills perceived by the learner-respondents.

Table 5 Correlation Between Teacher-Respondents' Level of Perceived Self-Efficacy and Extent of 21st Century Learning Skills Integration as Perceived by the Students

Variable	n	M	SD	1	2
1. Perceived self-efficacy	150	4.46	0.23	-	0.23*
2. Extent of integration	150	3.41	0.21	0.23*	-

Note. P = 0.0047, significant at $\alpha=0.05$

The p value at 0.05 level of significance is 0.0047, hence, significant. The null hypothesis is rejected. This means that there is a significant relationship between the teachers' self-perceived level of teaching competence and extent of integration of 21st century learning skills.

This shows that the teachers' self-perceived level of teaching competence is a possible determinant of the extent of integration of the 21st century learning skills. The more confident and competent they are, the more that they integrate the 21st century learning skills. This finding supported the earlier study of Schunk (2014) and Haljoo (2014) which revealed that teachers with high self-efficacy tend to enrich lessons with challenging activities, help students increase their success, and pay attention to students who have difficulty learning.



The finding is important as teachers are critical elements as they create instructional interactions that influence student learning (Nordstrum, 2016). The findings indicate that the more teachers are confident of their competence, the better they can create instructional opportunities for the learning of 21st century skills.

Based on the data presented, most of the teachers were in the higher level of educational attainment as Bachelor's degree and Master's degree holders who have also attended into various training. It reflected to their level of self-perceived teaching competence as "Experts" and "Advanced." As to the extent of integration of 21st century learning skills as perceived by the learner-respondents, it indicated mostly as "Integrated" which also an evidence of positive indicator of the level of the self-perceived teaching competence of the teachers. Out from the findings of this study, the research proposed some implementing policies to enrich the ALS implementation in the province of Biliran. The following section is a presentation and discussion of the proposed implementing policies.

Proposed Implementing Policies

For an effective ALS implementation, the following policies could be considered, that:

- the ALS teachers should hold a diploma/graduate certificate in distance education; this will allow them to further enhance their capabilities as forerunner implementers of the program that offers distance education;
- the ALS teachers should at least hold a Master's degree or Doctorate degree within 3-5 years of service to upgrade their professional growth and development;
- the ALS teachers will have 1 to 2 action researches every two years for them to assess their teaching strategies, method, and skills which will fully develop their students' potentials and skills as well as boost their teaching competencies; and,
- the learning modules and learning plans will be integrated with the different 21st century learning skills.

5.1 Summary, Conclusion and Recommendations

This section presents the summary, conclusion and recommendations of the study on the self-perceived teaching competencies and the extent of integration of the 21st century learning skills.

Summary

This study utilized the descriptive-correlational method using the correlation analysis in establishing the relationship between the teacher-respondents' self-perceived level of teaching and competence and extent of 21st century learning skills integration in the alternative learning system.

The respondents included all the 18 ALS teachers and 150 ALS students enrolled in the classes of the teacher-participants. This was done from December to January 2021. Specifically, it answered the research problems.

Findings

- The teacher-respondents were mostly in early adulthood, female, married, Bachelor's degree holders, specializing in General Education, with 1-3 years of teaching, and attended more than 4 training.
- The learner-respondents were mostly in adolescence, male, married and below poverty level.
- The teacher-respondents self-perceived level of teaching competencies were experts.
- Except for Global Connections and Creativity and Innovation Skills which had a rating of "Moderately

Integrated,” all the other 21st century skills were perceived as “Integrated” with Using Technology as a tool for learning getting the highest mean.

- There is a significant relationship between the teachers’ self-perceived teaching competence and extent of 21st century learning skills integration.
- Implementing policies to enrich ALS implementation was proposed.

6.1 Conclusion

Teachers were confident that they have the ability to teach and that they have the competencies needed to influence student learning. The teachers’ self-perceived level of teaching competence is a possible determinant of the extent of integration of the 21st century learning skills. Even if they have this confidence and competence, their learning should never be stopped and they must upgrade their professional growth and development. If teachers have further studies and participate in various professional development and growth activities, the more they can contribute to improving the quality of education (Burner & Svendsen, 2020; Jaszczyszyn & Lewkowicz, 2019; Zeiger, 2018; Pineida, 2011). Based also on this finding, the Functionalist Theory which asserts that the teachers have specific function in the society and that is to serve as agents of legitimate knowledge transmission and to provide children with certain skills needed for the future of the society (Sever, 2012) was significantly affirmed. Also, the Social Constructivism theory also affirmed the role of teachers as facilitators of learning (Lynch, 2016).

Recommendations

Based on the findings and conclusion of the study, the following recommendations to the respective stakeholders are offered, that:

- the Department of Education send their teachers, specifically in the Alternative Learning System, to more distance education relevant trainings, seminars workshops, among others to fully equip;
- the Higher Education Institution’s extension program be actively forged in partnership with ALS as support system; and,
- future researches be conducted relevant to monitoring and improvement of the Alternative Learning System curriculum

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