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# Functional Literacy of Alternative Learning System (ALS) Learners: Basis for Sustainable Extension Activity Development

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**Abstract.** This study aims to determine the functional literacy acquisition of Alternative Learning System learners and make a sound basis for strategic planning and pedagogical intervention that will help promote and develop the said program. The descriptive-evaluative method of research was used in the study. The descriptive method was used to identify the respondents' profile based on a) age, b) gender, c) civil status, and d) employment status. The evaluative method was used to determine the respondents' functional literacy acquisition in a) communication skills, b) scientific and critical thinking skills, c) mathematical and problemsolving skills, d) life and career skills, e) understanding the self and society, and f) digital citizenship (formerly digital literacy). Frequency Count and Percentage Technique was used to describe the functional literacy acquisition of the respondents. Meanwhile, a modified survey questionnaire based on the functional literacy, education and mass media survey ("National Profile of Adult Literacy and Numeracy Skills," 2004, p. 91) was used as the primary tool to gather the data. The respondents in this study were the students enrolled in ALS-Sipocot (North and South District), the school year 2019-2020. Due to Covid restrictions, other ALS learners from other municipalities were not covered as part of the study. Findings revealed that ALS learners do not yet manifest the complete acquisition of functional literacy needed to face the globalized world's challenges because their attainment of the required functional literacy skills is generally low. Moreover, the study disclosed that sex, age, civil status, and employment status affect the acquisition of functional literacy skills among ALS learners in Sipocot, Camarines Sur. Based on the results, the researcher developed an extension activity to help the ALS learners improve their functional literacy, particularly in the digital citizenship area, where they got the lowest score.

Keywords: Functional Literacy; Alternative Learning System; Extension Activity

#### Introduction

According to UNESCO (2015), the world illiteracy level is still very high, with about 775 million adults not reading and writing. Three-quarters of these are in ten countries in descending order: India, China, Pakistan, Bangladesh, Nigeria, Ethiopia, Brazil, Indonesia, and the Democratic Republic of Congo. Two-thirds of these illiterates are women, and very high rates are concentrated in three regions of the world: south and west Asia and Sub-Saharan Africa. As National Literacy Trust (2013) noted, literacy skills are essential to attaining school and fulfilling potential opportunities throughout life. Literacy and Numeracy skills are needed in every aspect of life, and denying a child the right to these skills is denying him/her a good life, skills to proper adjust, being a valuable member of society, and ability to assess useful information to be able to make the right choices.

According to Olupotunde (2014), an individual without literacy is deprived of real opportunities to engage with democratic institutions to make informed decisions, exercise citizenship rights, and act in the public interest. Because of their inability to process information, illiteracy dwarfs a person's mind, making it difficult to manage. As the most populous black country in the world and a Sub-Saharan country, Nigeria has a large population of illiterates. The adult literacy rate (15 years and above) in Nigeria is 51 percent, the male literacy rate is 61.38 percent, and the female literacy rate is 41.4 percent, according to UNESCO (2013) national literacy statistics. A total of 41,845,172 million adults are illiterate,

with women accounting for 60.1 percent of the total. The literacy rate among youths (15-24 years old) is 66.4 percent, with males accounting for 75.6 percent and females accounting for 58.0 percent. A total of 9,814,568 million young people are illiterate, with females accounting for 62.4 percent of the total.

The United Nations Literacy Decade, which began in 2002, aided governments in developing policies to reduce the number of illiterates; however, Oluputunde (2012) believes that eliminating mass illiteracy among adults and children by 2025 is impossible. Unfortunately, 10 million children of school age are out of school, particularly in the north of the country; studies show that Nigeria's literacy rates vary greatly depending on geopolitical zones and even state to state. In the northern state of Borno, 72 percent of primary-age children are out of school.

In contrast, it can be as poor as 3% in the southern region. Most primary school leavers constitute a class of illiterates who have attended school but lack the basic literacy and numeracy skills to work correctly and effectively. According to Edem et al. (2011), using a foreign language, "English," for communication and learning in schools poses unique challenges and is the primary cause of low literacy and numeracy among primary school graduates. Okon lamented in Edem et al. (2011) that a situation where most language teachers are not fluent in the language and lack the basic skills they are supposed to be teaching is disheartening.

Illiteracy has been identified as the most significant impediment to a country's economic development. Most notably, countries in Southeast Asia and Africa have been hit by an economic crisis brought on by poverty, which is linked to illiteracy. The Philippines has been identified as one of Southeast Asia's countries with the highest poverty rates. Out-of-School Children (OSC), Out-of-School Youth (OSYs), and Out-of-School Adults (OSAs) were the groups most affected by poverty, owing to a lack of educational opportunities caused by illiteracy (Apao et al., 2014). To address the problem, the Alternative Learning System (ALS) was created to allow all Filipinos to access and complete their primary education in a way that best suits their circumstances and needs (DepEd, 2016). A parallel learning system that combines nonformal education and informal sources of information and skills is known as the Alternative Learning System (DepEd, 2016). It is designed to meet the educational needs of school dropouts, adults, and other disadvantaged learners who do not have access to formal education. Many who are "deprived, depressed, and underserved," as described by the legislation, will now be able to receive education leading to the Accreditation and Equivalency (A&E) Test, which can award either elementary or high school diplomas, thanks to ALS (Arzadon & Nato, 2015). The Bureau of Non-Formal Education (BNFE) created this exam, which is provided once a year.

Functional literacy is one of the most important things that must be promoted among ALS students. Functional literacy, according to UNESCO (2006), is the capacity to make substantial use of activities that include reading and writing skills, such as using information, communicating with others, and enrolling in a lifelong learning course, all of which are essential for an individual's ability to express himself or herself in daily life. It can be used to help a person contribute to his or her progress and that of his or her family and community. It involves skills needed for both formal and informal engagement and those required for national change and growth.

This subset of skills is thought to be essential to success in today's world, particularly in collegiate programs and new professions and workplaces, and can be applied in all academic subject areas as well as all educational, career, and civic settings throughout a student's life (Moyer, 2016). These skills are needed to solve complex problems, collaborate and interact effectively with others, independently learn new skills and knowledge, and adapt to rapidly changing circumstances (Gewertz, 2008). As a result, it is a fact that educational institutions

worldwide should promote these skills to their students through formal education. However, it is also a fact that a large percentage of the global population is made up of dropouts, out-of-school teens, and even people who do not attend formal schooling. Furthermore, non-schooled individuals have difficulty comprehending and learning 2these skills to cope with and compete in a globalized world. Furthermore, to meet the challenges posed by the evolving environment and knowledge economy, countries worldwide have proposed and implemented nonformal and informal education (Colardyn & Bjornavold), especially in developing countries like the Philippines (Nath, Sylvia, & Grimes, 1999).

The implementation of ALS paved the way for disadvantaged groups, including girls, women, people with special needs, and Indigenous people communities, to claim their educational rights, as well as out-of-school-youths (OSY) who did not complete their primary education due to economic and support issues (Doronila, 1997; Raywid, 1994; Valk, 2009). Many studies have shown that globalization benefits trained, qualified, and mobile employees (Abinales & Dolan, 2012; Guerrero, 2007), and disadvantaged groups who lack access to education are unlikely to benefit from modernization. The Bureau of Alternative Learning System (BALS) of the Department of Education (DepEd) has developed a curriculum that combines formal and nonformal education to help OSY, and underprivileged Filipino learners cope with the fast-changing workplace (Philippine Education for All, 2009). One of the program's goals is to improve its participants' functional literacy, which is deemed appropriate for dealing with the challenges that come with working in a globally competitive environment.

with the preceding statements, this study aims to determine the level of functional literacy of Alternative Learning System learners and make a sound basis for strategic planning and pedagogical intervention to promote and develop the said program.

## **Objectives**

This study aims to achieve the following research objectives:

- 1. Identify the profile of the respondents based on a) Age, b) Gender, c) Civil Status, and d) Employment Status;
- 2. Identify the respondents' functional literacy acquisition along a) Communication Skills, b) Scientific and Critical Thinking Skills, c) Mathematical and Problem-Solving Skills, d) Life and Career Skills, e) Understanding the Self and Society, and f) Digital Citizenship (formerly Digital Literacy);
- 3. What are the demographical differences of the respondents based on their functional literacy acquisition?; and
- 4. What extension activity can be proposed based on the results of the study?

### **Theoretical Framework**

The thesis is based on Ecological Theory, which helped to justify the current phenomenon's argument. Bronfenbrenner's philosophical views from 1976 were used to establish the Ecological Theory. The ecological model investigates the external and internal factors that affect a child's development and growth. A child is born and grows up in a social and cultural environment, according to Bronfenbrenner (1976). Other social and cultural settings influence each social and cultural setting. For instance, a child is born into a family, and each family has its own set of social norms and cultures and backgrounds, values, and disciplines; the family is also linked to the school, community, and other institutions.

Both of the linking agents have a significant effect on the child's family, which impacts the child as well (Begum, 2007, p. 17, citing Bronfenbrenner, 1976). In addition to the expressions above, Cook and Kilmer (2010) mention Ecological Theory as "Ecological System Theory." The structures represent a variety of nested components that influence a child's growth, development, and adaptation: those that directly interact with and affect the child (e.g.,

the family environment, teachers, and peers), as well as broader, more indirect forces (e.g., neighborhood characteristics, culture, and socioeconomic status) that affect the child and family. According to Bronfenbrenner's Ecological Theory, an individual's ecosystem is made up of a dynamic web of interconnected structures.

Individual development is influenced by the mutual and internal relationships between these systems and the individual's relationship with the society in which these relationships exist (Bronfenbrenner, 1979; Lindo, 1997 as cited in Obalar, 2009). Ecological Theory looks into the various subcultures that people belong to. The mesosystem reflects one's professional relationships, including their microsystem's networks and other social networks. One's school site, for example, and outings with friends, both of which contribute to an individual's personal and social development (Tissington, 2008). The term "mesosystem" refers to social settings that do not contain an individual but impact his social network experiences. Work experiences, for example, may have an impact on a person's relationship with his family (Tissington, 2008).

As a result, each individual belongs to a distinct subculture. People's beliefs and ideologies lead them to participate in various activities within these subcultures. Bronfenbrenner emphasizes each cultural setting's ideology, norms, values, and belief system in the final stage. At this stage, a child interacts with various institutions based on the child's norms, ideologies, and beliefs (Bronfenbrenner, 1976 as cited in Begum, 2007, p. 19). It can be seen in the figure below, the interaction and triangle relationship between one's family, education, and the environment is the foundation of Ecological Theory. This triangle is critical for a child's language learning as well as functional literacy.

With the previous discussions, it is fair to assume that an individual's ecological environment is advantageous to developing his functional literacy and academic achievements. The current research's establishment of the Functional Literacy acquisition based on Ecological Theory (FLESBUET) will provide a strong basis for strategic planning and pedagogical intervention to help the ALS program's promotion and growth.

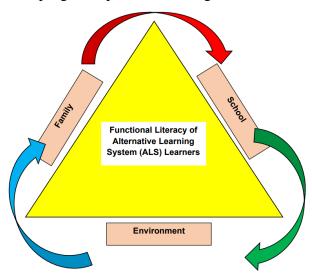


Figure 1. Theoretical framework

## Methodology

The descriptive-evaluative method of research was used in the study. The descriptive method was used to identify the respondents' profile based on a) Age, b) Gender, c) civil status, and d) employment status. The evaluative method was used to determine the respondents' functional literacy acquisition in a) Communication Skills, b) Scientific and Critical Thinking Skills, c) Mathematical and Problem-Solving Skills, d) Life and Career Skills, e) Understanding the Self and Society, and f) Digital Citizenship (formerly Digital Literacy). For

the accurateness and truthfulness of the results, the researcher used various statistical tools to analyze and interpret the data gathered. Frequency Count and Percentage Technique was used to describe the functional literacy acquisition of the respondents. Meanwhile, a standardized Functional Literacy Acquisition Survey Questionnaire (FLT) was used to assess the respondents' functional literacy acquisition.

## Respondents

The respondents in this study were the student enrolled in ALS-Sipocot (North and South District), the school year 2019-2020. Based on the records, there were 32-learners enrolled in the system; however, only 24-active students participated in the study. The profile of the respondents is presented in Table 1. The respondents were given the survey questionnaire through the assistance of the ALS coordinator. Before distributing the survey questionnaire, the researcher made a consent letter to the gatekeeper (ALS coordinator) to conduct the study. Moreover, informed consent was given and discussed to the respondents for their voluntary participation in the study. The study's scope is exclusively within the Sipocot area because the researcher cannot gather the data from other municipalities due to Covid restrictions; thus, other ALS learners from other municipalities were not part of the study.

### **Data Collection Tools**

A modified survey questionnaire based on the Functional Literacy, Education and Mass Media Survey ("National Profile of Adult Literacy and Numeracy Skills," 2004, p. 91) was used as the primary tool to gather the data. The survey is divided into two areas; Part I is devised to get the respondents' profile while Part II has six components about sub-skills of functional literacy: a) Communication Skills, b) Scientific and Critical Thinking Skills, c). Mathematical and Problem-Solving Skills, d) Life and Career Skills, e) Understanding the Self and Society, and f)Digital Citizenship (formerly Digital Literacy). The instrument for gathering the data used a four-point Likert-type scale that reflects the frequency of usage. By taking the arithmetical mean, overall scores for the scales were determined. The regular scores were collected for all data collection instruments; the analysis thus obtained true and accurate statistical comparisons.

### **Results and Discussion**

## **Demographic Profile of the Respondents**

Table 1 shows the demographic profile distribution of the respondents. Data revealed that 9 or 37.5 % were male and 15 or 62.5% were female; thus, most of the ALS learners in Sipocot were female.

Table 1. Demographic profile distribution of respondents

Background Variable	Frequency (N=24)	Percentage
Sex		
Male	9	37.5
Female	15	62.5
Age		
10-15	0	0
16-20	6	25
21-30	10	41.67
31 above	8	33.33
Civil Status		

Single	15	62.5		
Married	9	37.5		
Widow	0	0		
Employment Status				
Farmers	4	16.7		
Technical/industrial	1	4.2		
Home based	9	38		
Unemployed	10	41.1		

As to the age distribution, the data shows that respondents with age ranging from 21-30 have the highest frequency of 10 or 41.67%; eight or 33.33% has an age of 31 and above, and six or 25% has an age ranging from 16-20-year-old. Meanwhile, the data showed that single has the frequency of 15 or 62.5% of the respondents and nine or 37.5% are married in the marital status. For the employment status, ten or 41.1% are unemployed, nine or 38% are home-based workers, four or 16.7% are farmers, and only one or 4.2% is under technical/industrial services. These respondents' demographic characteristics were identical to those observed in similar studies on ALS students in other parts of the Philippines (Jimenez, 2018; & Dela Cruz, 2019).

## **ALS Learners' Functional Literacy Acquisition**

Table 2. Descriptive Statistics on the Functional Literacy Skills of the ALS Learners in Sipocot

Functional Literacy Skills	М	SD	Description
Life and Career Skills	3.17	0.80417	Moderate
Understanding Self and Society	2.70	0.73079	Moderate
Scientific and Critical Thinking Skills	2.50	0.71618	Low
Mathematical and Problem-Solving Skills	2.42	0.81376	Low
Communication Skills	1.87	0.71059	Low
Digital Citizenship	1.70	0.66479	Very Low
Total		0.72911	•
:	2.39		

Note. ALS = alternative learning system

Table 2 presents the students' functional literacy skills in the ALS in Sipocot, Camarines Sur (s/y 2019-2020). The findings revealed that the level of ALS learners' acquisition of functional literacy skills is low. It implies that the learners enrolled in the said program do not yet manifest the functional literacy skills. Under this area, life and career skills have the highest level of acquisition by the learners. This implies further that the learners' support for the practical application of knowledge is appealing and beneficial to them.

Moreover, the findings conform to the results of the studies of Aycocho, Mendizabal, and Razal (2013), wherein they said that teachers should emphasize the teaching of practical knowledge to ALS learners because this is deemed pivotal to the immediate needs of the learners. Hence, ALS teachers should adopt localized instructional materials to highlight the practical application of knowledge and provide more hands-on experiences to the learners to gin the practical experiences. Meanwhile, the findings also show that most of the skills are low, such as communication and mathematical and problem-solving skills.

<sup>3.26-4.00—</sup>High

<sup>2.51-3.25-</sup>Moderate

<sup>1.76-2.50—</sup>Low

<sup>1.00-1.75-</sup>Very Low

The learners' various statuses and learning styles are one possible reason. According to Fernandez (2013), the learning competencies are significant issues mobile teachers face, as there are advanced and slow learners affecting cognition abilities to task-related factors such as a task or lesson complexity. Furthermore, Larazabal (2016) stated that students' communication skills could be improved and cultivated by giving them drills and simulations anchored to real-life scenarios where the skill can be seen in action.

Mercado (2005) stressed that students should always be able to share their thoughts and that teachers, on the other hand, must provide opportunities for students to do so. He went on to say that communication is one of the essential skills to have in today's world. Furthermore, Silva (2009) stated that group activities are intended to foster a stronger relationship between the students. Eventually, the class will become a support group where they will feel no remorse or embarrassment about expressing their thoughts, allowing them to respond and be available.

The study also shows that Scientific and Critical Thinking Skills are among the lowest developed functional literacy skills. According to Reyes (2017), nonformal learners must provide meaningful learning opportunities to such a diverse audience. It necessitates the informal exchange of perspectives and various views, educating mobile teachers about the learners' current situation, concerns, and desires. Provide learners with situational exercises or tasks where they can practice critical thinking. It will help both students and teachers modify and evolve approaches to delivering the necessary competencies to students. Meyer (2010) proposed that teachers use project-based learning to help students build or improve their scientific and critical thinking skills. Successful formative feedback, he claims, enables students to be autonomous by allowing them to take charge of their learning. They can make progress if they know what to do to improve, then they can function independently.

On the one hand, the findings revealed that Digital Citizenship got the lowest score. It involves upgrading learning materials and supplying learners with new techniques, such as using ICT to guide ALS students. The results support Mora and Cruz's (2014) research, which found that having access to ICT equipment and upgrading ALS teachers' skills in using ICT to provide instruction has significant consequences for modern teaching and learning for ALS beneficiaries. Teachers' instruction in the use of technology in the classroom, according to Moyer (2016), is critical and should be implemented regularly. Furthermore, Russell, Finger, and Russell (2000) and Hardy (1998) found that the restricted use of ICT is distinguished by providing minimal instructional technology skills for teachers in preservice education training courses. As a result, teachers do not use ICT in their classrooms and instead choose to teach conventionally. Finally, students will be unable to improve their ICT skills further.

# Demographical Differences of the Respondents based on their Functional Literacy Acquisition

Table 3 presents the significant differences in ALS learners' functional literacy skills of Sipocot, Camarines Sur when grouped according to sex.

Table 3. Significant differences on the functional literacy skills of Alternative Learning System learners when grouped according to sex

Functional Literacy Skills	n	t value	<i>p</i> -value
Life and Career Skills	24	-1.199	.233
Understanding Self and Society	24	-0.991	.928
Scientific and Critical Thinking Skills	24	-1.526	.129
Mathematical and Problem-Solving Skills	24	-2.166	.032
Communication Skills	24	-0.439	.661
Digital Citizenship	24	1.322	.185

When classified by sex, the findings show that Life and Career Skills, Understanding Self and Society, Scientific and Critical Thinking Skills, Communication Skills, and Digital Citizenship Skills do not vary significantly. On the other hand, there is a significant gap in Mathematical and Problem-Solving Skills. Male students are more likely to take Mathematical and Problem-Solving exams, according to the findings. The findings corroborate previous studies' findings (San Agustin, 2015; Chua, 2016; Fowler, 2017). Furthermore, Abraham (2015) emphasized that the disparities between men and women in Mathematical and Problem-Solving Skills are better clarified in terms of gender-dependent methods or cognitive styles used when dealing with productive tasks.

Table 4. Significant differences on the functional literacy skills of Alternative

Learning System learners when grouped according to age

Functional Literacy Skills	n	t value	<i>p</i> -value
Life and Career Skills	24	2.023	.113
Understanding Self and Society	24	1.183	.318
Scientific and Critical Thinking Skills	24	0.270	.847
Mathematical and Problem-Solving Skills	24	1.442	.233
Communication Skills	24	0.652	.580
Digital Citizenship	24	2.011	.015*

Meanwhile, Table 4 indicates the major gaps in Functional Literacy Skills of Alternative Learning System Learners when grouped by age. When grouped by age, the findings show that Life and Career Skills, Understanding Self and Society, Scientific and Critical Thinking Skills, Communication Skills, and Mathematical and Problem-Solving Skills do not vary significantly. However, there is a big gap in Digital Citizenship. Young learners between the ages of 15 and 20 have the highest rate of ICT incorporation. The findings corroborate previous research on ICT integration through age groups (Davies, 2010; Crane, 2012; Brown, 2015). Furthermore, the finding can be because today's teens have easy access to the Internet and social networking sites.

Furthermore, Table 5 reveals substantial gaps in Functional Literacy Skills of Alternative Learning System Learners when classified by civil status. When classified by civil status, the results indicate that Life and Career Skills, Understanding Self and Society, Scientific and Critical Thinking Skills, Communication Skills, Mathematical, Problem-Solving Skills, and Digital Citizenship have no significant differences. As a result of the findings, it can be concluded that civil status has no bearing on the acquisition of 21st-century skills among ALS students in Sipocot, Camarines Sur.

Table 5. Significant differences on the functional literacy skills of Alternative

Learning System learners when grouped according to civil status

Functional Literacy Skills	n	t value	<i>p</i> -value
Life and Career Skills	24	1.335	.266
Understanding Self and Society	24	2.221	.112
Scientific and Critical Thinking Skills	24	5.270	.066
Mathematical and Problem-Solving Skills	24	0.793	.455
Communication Skills	24	0.472	.625
Digital Citizenship	24	0.809	.447

Finally, Table 6 reveals substantial gaps in Functional Literacy Skills of Alternative Learning System Learners when classified by employment status. According to the findings, Understanding Self and Society, Scientific and Critical Thinking Skills, Communication Skills, Mathematical, Problem-Solving Skills, and Digital Citizenship have no major differences in terms of employment status among ALS learners. This means that learners' employment status has little bearing on their ability to acquire functional literacy skills.

Table 6. Significant differences on the functional literacy skills of Alternative

Learning System learners when grouped according to employment status

Functional Literacy Skills	n	t value	<i>p</i> -value
Life and Career Skills	24	3.249	.008*
Understanding Self and Society	24	1.733	.131
Scientific and Critical Thinking Skills	24	1.584	.168
Mathematical and Problem-Solving Skills	24	2.075	.072
Communication Skills	24	1.396	.229
Digital Citizenship	24	1.426	.218

However, it can also be gleaned from the results that Life and Career Skills significantly differ among ALS learners in terms of their employment status. Those ALS learners working under home-based professions have the highest level of acquisition of Life and Career Skills. It could be attributed to the fact that these students are more exposed to apply their technicalknow-how even at their homes' comforts and whose business is within their houses.

## **Conclusion and Implications for Further Research**

The Functional Literacy Skill Acquisition of Alternative Learning System Learners in Sipocot, Camarines Sur, was investigated. Since their attainment of the requisite functional literacy skills is generally poor, the research findings suggested that ALS learners do not yet have the complete acquisition of functional literacy needed to face a globalized world's challenges. One of the study's most significant contributions is that it highlights and shows how ALS students are progressing in their learning of functional literacy skills, which will serve as a foundation for policy and intervention development to help ALS students cope with the challenges globalization. The study also finds that sex, age, civil status, and employment status impact the acquisition of functional literacy skills among ALS students in Sipocot, Camarines Sur.

Furthermore, the study adds to the body of knowledge on ALS and nonformal education by shedding light on the current state of ALS, especially in the Philippines, in terms of promoting Functional Literacy Skills among its clients and enrollees. More specifically, the report added to existing findings and studies on evaluating and assessing nonformal education by providing new perspectives and recommendations. A possible expansion of this study will be to look at the ALS teachers' skills and competencies. Furthermore, given that the current study was conducted in a single town in Camarines Sur's first district, it may be worthwhile to investigate the Functional Literacy Skill of ALS learners in other towns in the same district and perform a comparative study to see if the findings here represent the general situation of ALS learners in the community.

Based on the findings, the researcher devised an extension activity to assist ALS students in improving their functional literacy, especially in Digital Citizenship, where they scored the lowest. The researcher and his research advisees conceptualized this idea as part of their academic requirement. Changes were made to the original proposal to ensure that the program's mission and goals are aligned with the competencies discussed in the current report. For the project's long-term viability, the researcher believes that a separate study would be needed to evaluate its effect on the ALS beneficiaries; therefore, go through the impact assessment phase.

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