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Community Extension: Literacy and Numeracy Enhancement Program for Alternative Learning System and Out-Of-School Youth Learners

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ABSTRACTS

This descriptive study was mainly focused on evaluating the effect of the literacy and numeracy enhancement program on the learning achievements of deprived individuals in two selected locales of Tacurong City, the Philippines. Key participants included 6 ALS learners composed of 3 Muslims and 3 non-Muslims who were residents of the Islamic Center, Barangay Población. Moreover, 10 out-of-school youth (OSY) of Barangay New Isabela took part in the activity. Initially, the implementers prepared their teaching aids and the assessment tool intended for the participants' pretest and post-test. The study was carried out over 6 months through a weekly face-to-face casual session. Results of the pretest and posttest were statistically treated using a simple mean and t-test. Data analyses showed that both ALS and OSY groups have gained scores in the posttest that are relatively higher than that in the pretest. Outcomes in both literacy and numeracy program are encouraging and comparable. The result implied that the program also improved the implementers professionally and socially as a result of their engagements with some actors in the community. Given the limitations of the study, it is highly suggested that the program would be sustained by targeting a larger number of participants.

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1. INTRODUCTION

In Sultan Kudarat State University, since program accreditation was advocated in 2007 the Extension Services of the College of Teacher Education (CTE) have been steadily active. It is true to its mandate of providing progressive leadership in its areas of specialization. It desires to contribute to the community by facilitating the delivery of knowledge and skills mainly to underserved communities. With the varied expertise of its faculty, it is committed to serving off-campus according to the identified needs of the target beneficiaries. Usually, the capacity to provide a formal or alternative mode of instruction, particularly on basic education comes as the most convenient service that the college can readily share. As the alternative learning system (ALS) is one of DepEd priority programs nowadays, the CTE extension workers found it practical to engage on it. Given the supportive and facilitating role of the university, the implementers thought of forging an agreement with the latter to exercise the institutional function of extension. While Barangay Población of the city hosts one of the deprived communities known as ―Islamic Center‖ where some ALS learners live, thus, it was considered very appropriate for the activity to be carried out therein. Moreover, Barangay New Isabela was pegged to have many out-of-school (OSY) based on school data. Considering that there was an apparent need to embark on learning enhancement among these ALS and OSY, the faculty-implementers took the challenge of responding to the educational needs of these learners through a modest literacy and numeracy program. Equally, research and extension activities are not dis-joint and it is hence the study. Many papers discussed accreditation (Al-Obaidi, 2021), but their study was not focused. Primarily, the study aimed at describing the effect of the literacy and numeracy enhancement program on the key participants and the implementers. In specific terms, it sought to satisfy the following objectives:

1. To describe the learning achievements in English and Mathematics of the ALS and OSY participants in terms of the pretest, posttest and gain scores.
2. To test the difference between the ALS and OSY participants'learning achievements.
3. To find out the effects of the literacy and numeracy enhancement program on the implementers.

2. LITERATURE REVIEW

Historically, the extension services in the country have been in practice since the Spanish era and it was recognized as a national system only in 1952. It was also indicated that a community-based approach made its significant application relative to extension works in the 1970s. The community development work was facilitated by the Department of Local Government and Community Development (now DILG) which acted as the coordinating body. In the 1980s, non-government organizations (NGOs) started and participated as acceptable channels for direct assistance.

To date, extension service is one of the mandated functions of all public higher educational institutions (PHEIs) in the Philippines aside from instruction and research. Republic Act 7722, otherwise known as the Higher Education Act of 1994, mandates institutions of higher learning like state universities and colleges (SUCs) to respond to the call for a societal transformation to serve the poorest of the poor, the less privileged, the deprived and the oppressed. In its Charter, SKSU is directed to ―provide advanced instruction and professional training in science and technology, agriculture, fisheries, education, and other relevant fields of study‖. Likewise, it is required to undertake research and extension services (Section 2, RA 9966). In 2016, the Commission on Higher Education issued CMO No. 52, s. 2016 to provide

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competition-driven grants or assistance for their competent faculty members who want to engage in extension works. Considering that universities served as producers of knowledge or hubs of innovations, they are in the position to partner with the communities, industries, or businesses in facilitating the transfer of knowledge and technology to development areas particularly affecting communities. This mechanism prompted many extension activities or community engagements to be organized among HEIs in the country. In the General Appropriations Act (GAA), extension service is defined as an inherent function of an institution of higher learning to initiate, catalyse, and sustain the development of various communities, using their experience and available resources.

In his study, Medina (2018) pointed out that other higher education institutions today have encouraged a transformed style of relationship between the academe and the client community. Advocates would often refer to it as –engagement‖. However, not all academic institutions are swiftly able to develop these engagements with the public. Hence, an assessment of their competence to address the apparent weaknesses needs to be done to effectively leap into such endeavour in the future. Also, some liberal private HEIs even have extension activities which they dubbed outreach programs while others regarded it as corporate social responsibility (CSR). In his CSR study at a Catholic University, Academic programs should empower individuals, liberate the mind from ignorance, cultivate social responsibility, inquiry, and intellectual powers, engage students, and foster civic engagement and social responsibility in integrative learning. Basically, the intent of CSR is the same as the extension services of SUCs which proceeded to community or stakeholders 'transformation. Thus far, several studies on impact among extension programs in the country have been carried out (Tacbas *et al*., 2010; Bidad and Campiseño, 2010; Llenares and Deocaris, 2018). Generally, results indicated that the extent of impact ranged from moderate improvement in community knowledge, attitude, and lifestyle to improved long-term outcomes after the completion of any extension program. Constraint on the best outcome is often because faculty implementers are preoccupied with heavy academic loads while doing extension work. Typically, it ended up in the piloting stage as no personnel would stay in the villages to sustain the efforts. Llenares and Deocaris (2018) cited that extension programs of HEIs have varying delivery modes. They discussed that there are delivery approaches that deal with utilizing students to help local groups and other ways that involve faculty and staff programs to attend to community development in the form of —educational cohorts, social service, public health, livelihood and technical training, consultations and direct application of R&D output. Daquis *et al*. (2016) cited that the most common examples of extension activities are those dealing with livelihood, health promotion, and computer literacy programs. Remarkably, community extension services are not only simply limited to the needs of the community but also the vision and mission of the institution. It also extends to the opportunities to make education accessible to the poor and pursue a socially relevant education addressed to the young, poor, and the youth at risk, and promote the Filipino value of unity by ensuring justice and human dignity.

3. METHODS

The study was descriptive-evaluative in nature. It was carried out on 6 ALS learners and 10 out-of-school youth in a couple of barangays in Tacurong City, namely: Poblacion and New Isabela, from 1 July 2017 to 30 June 2018. The Islamic Center in Barangay Poblacion was selected to be the setting as it has the highest registrant of ALS learners based on DepEd data.

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Moreover, New Isabela was recognized with the most number of OSY in the city. The DepEd ALS and the Barangay LGUs provided the identity of the target learners and OSY, respectively. The participants were limited since attendance at the learning activity was voluntary. In carrying out the study, the program implementers developed and used two sets of teaching modules, i.e., one in literacy (English), and the other in numeracy (Mathematics) theme. College experts validated these pedagogical materials before utilizing them in teaching sessions. Actual implementation began with the participants' orientation and the subsequent administration of the pretest. The learning enhancement took place weekly every Friday morning. It was held at the Purok Center in Poblacion while at Barangay Hall in New Isabela.

Most often, the service support of the barangay was solicited to warrant maximum attendance of participants. The session ordinarily started with a prayer, then stating the learning objectives, presentation of lessons, guided exercises, independent activity through seatwork, reinforcement, and concluded by an assessment. To encourage learners' attendance, the researcher-implementers ensured that free snacks were provided to participants at each meeting. Learning activities became interactive and lively because implementers usually inserted engaging dances and games. Post-test was administered at the close of the program. Personal and direct observations were also utilized to collect information during immersion. In analyzing the gathered data, statistical tools like mean and t-test of independent and dependent means were applied. The level of significance was set at. 05 level of significance.

4. RESULTS AND DISCUSSION

4.1. On Learning Achievements

Table 1 shows the learning achievements of the ALS and OSY participants in English and Mathematics lessons as a result of the literacy and numeracy enhancement program. Pretest, post-test, gain scores, as well as differences, are presented and analyzed through t-test. Mean Gain is defined as the average differences between the post-test and the pretest scores.

Table 1. t-test Analysis on the literacy and numeracy enhancement results.

		Pretest	Posttest	Mean	Df	t-stat	t-critical @.05
Group	**n**	**Mean Scores**	**Mean Scores**	**Gain**			
			Literacy				
ALS	6	13.83	17.67	3.83	5	4.84*	2.57
OSY	10	13.00	21.10	8.10	9	5.71*	2.26
t-stat		0.33	1.59	2.19*			
Numeracy							
ALS	6	11.67	15.50	3.83	5	3.66*	2.57
OSY	10	13.30	20.40	7.10	9	5.34*	2.26
t-stat		0.58	2.45*	1.71			
t-critical @.05		2.14	2.14	2.14	14		

*Note: *- significant*

As indicated, the learning achievements in literacy of both groups relatively increase at a certain level from pretest to post-test, that is, 13.83 to 17.67 and 13.00 to 21.10 for ALS and OSY, respectively. Closer analysis of these data, however, revealed that the trend for each group is the opposite as the high score during the pretest tends to lower in the posttest, whereas the low in the pretest becomes higher in the posttest. Contrary, the pattern of scores in numeracy is different yet reliable be¬cause both achievements in the pretest of both groups consistently improve in the post-test. Gen¬erally, gains in scores are all positive across groups and programs indicative that changes in learning achievements possibly occur.

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4.4. Differences in Learning Achievements in Literacy and Numeracy

Data on the same table indicates that the learners' literacy achievement in the pretest and posttest are significantly the same for both ALS and OSY groups ($t=0.33<t_{tab[.05,14]}=2.14$; $t=1.59<t_{tab[.05,14]}=2.14$). It can be inferred that both groups have an observable increase in learning level after the enhancement program was conducted. This is evident as there is significant difference between the pretest and posttest results ($t=4.84>t_{tab[.05,5]}=2.57$; $t=5.71>t_{tab[.05,5]}=2.26$). The finding is implicit and difficult to dispute that no learning takes place. The difference between pretest and posttest scores that is statistically significant is enough proof to offer. In teaching and learning, Masters (2018) simplified the role of evidence that evidence available from the past assessments. It may also involve administering tests such as the pretest to identify appropriate starting points. In the same way, comparing the mean gain scores of the two groups shows that the OSY had significantly improved their score over the ALS learners ($t=2.19>_{tab[.05,14]}=2.14$). From these data, the researcher-implementers concluded that the enhancement activity helped the learners to improve their literacy level whether the participants are OSY or ALS. In other words, the Literacy Enhancement Program is a positive intervention in assisting deprived learners in the communities. Moreover, the learners' numeracy achievement levels in the pretest are the same for both ALS and OSY groups ($t=0.58<t_{tab[.05,14]}=2.14$). On the contrary, the OSY has a relatively higher score than the ALS group in the posttest ($t=2.45>t_{tab[.05,14]=}2.14$).

It can be established further that both groups have evident learning after the numeracy enhancement program was introduced. It is indicated by a significant difference in the pretest and posttest results ($t=3.66>tt_{ab[.05,5]=}2.57$; $t=5.34>tt_{ab[.05,]=}2.26$). However, the mean gain of the 2 groups shows that both groups of OSY and ALS have the same amount of learning ($t=1.71<tab_{[.05,14]}=2.14$). Generally, the data provides an inference that the enhancement activity provided an opportunity for the learners to improve their numeracy level whether the participant is an OSY or ALS. It suggests then that the Numeracy Enhancement Program is a valid mechanism that can help other beneficiaries of similar characteristics.

4.3. Effects on Program Implementers

On top of these indications, the implementers recognized that the experiences they have with the two (2) communities in the city are extensive and very valuable. Observing the ALS learners and OSY's enthusiasm to learn despite the unfriendly environment motivates them to keep coming back to the communities every week. They felt fulfillment and pleasure in serving these unfortunate individuals who were deprived of opportunities available to typical students. What is more essential was the fact that the implementers learned to associate with the community leaders, the barangay officials, and the beneficiaries themselves. As educators who are used to a formal setting, they were able to appreciate the difficulties and realities of learning under adverse situations as well as life among underserved members of society.

The foregoing findings are indications that the extension service of SKSU-CTE is relevant and working. Despite its narrow scope, the initiative tends to show an affirmative outcome. As the De-Ed ALS program needs a design improvement and higher OSY participation according to World Bank experts, the completed enhancement initiative is still laudable to some extent.

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5. CONCLUSION

From the preceding analysis and discussion of results, these essential conclusions are drawn: (i)The learning achievements of ALS and OSY participants have an opposite trend in literacy, while these were normal or consistent in numeracy; (ii) The literacy and numeracy enhancement program were effective as there were evident changes in learning achievements. Regardless of whether the learner was ALS or OSY, it was well settled that post-test mean scores were relatively higher than the pretest mean scores; and (iii) Indeed, the literacy and numeracy enhancement program promoted the professional and social growth of the implementers. It is obvious that the Literacy and Numeracy Enhancement Program had promoted the learning achievement of the selected participants as well as the implementers, it is thus suggested that the activity be sustained utilizing a larger group of beneficiaries. It can also be replicated in other underserved communities that are duly identified by the city government. Finally, the utilized instructional materials like the modules and assessment tools may be improved to meet the needs of a bigger and more diverse group.

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7. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. The authors confirmed that the paper was free of plagiarism.

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