

Educational Radio Broadcasting and its Effectiveness on Adult Literacy in Lagos

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Abstract

Education has been identified as one of the most important ways to achieve national development. With 3 million non-literate adults in Lagos State, the commercial nerve center of the nation, radio becomes a veritable medium to teach such adults who, for several reasons including economic, do not have the opportunity of formal schooling. The study assessed the effectiveness of educational radio broadcasting for adult literacy in Lagos State, Nigeria. Five hundred and five (505) adult learners participating in Lagos is Learning Project were purposively selected. Findings showed that a majority (62.4%) of the study participants used the instructional radio program, *Mooko Mooka*, to prepare for classroom instruction, while 53.5% of the study participants used the program for revision. Findings also revealed that 40.6% of them listened to the program three times per week and this implied that frequency of exposure could influence literacy skill. The study concluded that radio instructional techniques were effective in promoting adult literacy and therefore recommended that the radio listening sessions should be increased as part of efforts to reduce adult illiteracy in the country. Also, community media centers should be created in different communities to encourage group listening where learners can be supervised.

Keywords

adult, educational broadcasting, effectiveness, learning, literacy, curriculum, education, social sciences

Introduction

One major problem that has continued to affect development of the Developing World is citizens' low literacy level. This problem can be attributed to relative poverty and national development policies that have failed to meet international best practices. The United Nations Development Programme (UNDP, 2020) posits that members of the United Nations developed eight international development goals known as Millennium Development Goals (MDGs) to achieve worldwide human development. The MDGs aimed to promote development by improving social and economic conditions in the world's poorest countries. The second goal of the MDGs targeted children, with the hope of ensuring that they complete a full course of primary schooling.

Despite the MDG's lofty plans to ensure total literacy for all in developing countries, statistics provided by the United Nations Scientific and Cultural Organization (UNESCO, 2006) on the literacy level in Nigeria indicates that there were over 62 million illiterate Nigerians as of November 2015, a situation the organization describes as "dangerous to the development of the country" (Oluwole, 2015, para. 1). To emphasize the problem, UNESCO also stated that "it would take Nigeria another 58 years to completely eradicate illiteracy, even with innovations like Information and

Communications Technology and other learning mechanisms" (Oluwole, 2015, para. 2).

With the future of total literacy in Nigeria looking gloomy, world leaders gathered in 2015 at the United Nations in New York to adopt the 2030 Agenda for Sustainable Development. The fourth goal on the 2030 agenda is "quality education for all." With this agenda, Lagos State (and, by extension, Nigeria) has the opportunity to redirect its focus on education and human development. It is believed that "a sound educational system is a prerequisite to achieving progress, from the individual to the society to the economy" and that "the quality of human resource of a nation is judged by the number of its literate population" (Crossroads, 2003, p. 3). This is to say that education is pertinent to a nation's growth and sustainability.

Achieving total literacy requires using all channels, including the mass media, for teaching and learning. Using the mass media for educational purposes is based on the

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perceived influence that the mass media exert on the public. Schramm (1964) avers that the mass media can help in all forms of teaching, adult education, and skills training, where teachers, trainers, and monitors are scarce.

Of the various mass media, scholars like Onabajo (2000) and Moemeka (1981) advocated for the use of radio to reach out to the less privileged who reside in remote places. Radio can be a veritable channel to teach the non-literate adult who may not have the opportunity of formal schooling. The study thus examined how radio can be used effectively in the advancement of adult literacy in Nigeria.

Purpose

This study examines the effectiveness of radio educational broadcast programs and how they can enhance adult literacy using *Lagos is Learning* Project as an example. The research is critical because it is expedient to establish if radio programs can teach non-literate adults and facilitate their interest in literacy skill acquisition. While past studies have established that radio can be used for learning in primary schools (Odera & Kenya, 2011), secondary schools (Sanusi, 2011), tertiary institutions (Anele et al., 2019), social change program (Khalid & Ahmed, 2014), and in health communication program, studies have not established that radio can be successfully used to teach non-literate audiences in the skill of reading and writing. Therefore, this study sought to determine whether exposure to radio instruction (*Mooko Mooka*) could influence literacy skill acquisition among adult learners in the *Lagos is learning* Project.

To achieve this, the study is guided by four objectives: to ascertain whether the learners could read and write before exposure to *Mooko Mooka* and determine the program's influences on adult learners in the state. The authors determine the pattern of usage among the learners. It also investigates the influence of frequency of exposure of adult learners' skill acquisition to the radio educational program, *Lagos is Learning* Project.

Description of Mooko Mooka and the Primer

As part of Lagos State Government's plan to enhance literacy and skill acquisition, the program *Mooko Mooka*, an instructional program, was developed and directed at Yoruba adult learners in Lagos State. Learners are exposed to different topics that they can apply to their social and economic lives. The teaching method starts with the main topic based on adult learners' needs and motivations. At the end of the learning session, the radio facilitator usually gives an assignment to the learners, to be submitted to the facilitator at subsequent face-to-face session. The method adopted on *Mooko Mooka* is the Cuban method, which is a mixed-method involving a radio listening session and a face-to-face session.

The program is held four times a week: Wednesday at 16:05 hr (4.05 p.m. local time), a repeat broadcast at 22:10 hr (10.10 p.m. local time), Saturdays at 13:00 hr (1.00 p.m. local time), and a repeat broadcast at 19:00 hr (7:00 p.m. local time). These times were chosen to prevent any clash with the peak periods of trading, bearing in mind that the audiences are artisans and traders.

The primer is the reading material used both on the radio and the face-to-face sessions. It is designed in various local languages, following the state's language policy in education that basic education should ideally be given first in the learners' language, the wider community's language, and the official language. The primer is distributed free of charge to learners. The primer for Lagos State is designed in Yoruba Language.

Facilitators for the program are carefully selected with competences in local language, good communication skills, and interest in the learners as criteria for selection. The face-to-face session facilitators also coordinate activities at the learning center and encourage learners to participate in learning activities. On the contrary, the learners must create time to listen to the radio sessions preceding face-to-face interaction and be available for face-to-face learning at the designated centers.

Theoretical Framework—Hovland's Message Learning Theory

The study is anchored in Hovland's (1953) learning theory, which is based on the assumption that the success of learning a new thing will depend entirely on the persuasive language used (Pam, 2013). It is also based on the assumption that the repetition of a message increases learning. The repetition of the message is what Carroll referred to in his model of school learning as "opportunity to learn," which he said refers to the amount of time available to the learner to learn (Carroll, 1989, p. 26). According to Carroll (1989), good instructional design is vital to how a learner acquires new skills.

Hovland's assumption on the repetition of a message presupposes that people are exposed to a message, the more they remember and learn from it. For instance, in an instructional situation, the instructor is expected to repeat a word he or she wants the learner to learn more than once before asking the learner to say it. It is believed that how often an instructor repeats the word will make the message apparent to the learner and as such achieve the objective. According to Hovland (1953), understanding and internalizing a new thing depends entirely on the persuasive language used, therefore, for learning to occur, the learners must go through the four stages of learning: attention, comprehension, yielding, and retention. An individual must attend to a message and comprehend the same before acceptance, leading to action. Hence, Hovland theory provides theoretical basis for this study.

Historical Development of Educational Broadcasting in Nigeria

Ensuring learning and adult literacy were parts of the missions of the colonial masters at the inception of broadcasting in Nigeria, British Broadcasting Corporation's (BBC) program dominated the airwaves at the inception of radio broadcasting in Nigeria, but as noted by Onabajo (2002), "efforts were made to produce programmes that the local population could relate with" (p. 4). The idea to use the potential of broadcasting for education was first raised in 1959 when the then Western Region established the Western Nigerian Television (WNTV). The Region argued that such a medium could serve as an "additional means of improving the regional school systems that were handicapped by a shortage of qualified teachers in certain subject areas" (Sambe, 2008, p. 36).

The Eastern Nigerian Television (ENTV) and Kaduna Television (KTV) also joined the Western Region in this lofty pursuit when they were established. These stations' coverage areas were "subjects in elementary science, arts and crafts, English and History" (Onabajo, 2000, p. 4). In 1965, UNESCO examined the aims of the educational programs of the three regions and found out that the Western Region WNTV was established to reduce teaching deficiencies, enrich the content in selected secondary (second-level) syllabus subjects, and provide examples of good teaching; the Northern Region station which began in 1962 targeted learners in primary, secondary, and teacher-training colleges and the Lagos station was established to alleviate problems that emanated from the shortage of adequately trained teachers (Umeh, 1989).

Innovations in Adult Educational Programs in Nigeria

To meet the challenges of achieving total literacy in Nigeria, different programs were developed at federal, state, and local councils. These programs include the Basic Literacy Program, a 1-month program organized and financed by some local government councils. It is held under the coordination and supervision of the States' Ministries of Education (Obire et al., 2012). The Post-Literacy Program is another innovation in adult education program organized by the Ministry of Education in some states of the federation for completers of basic literacy programs and dropouts from formal primary schools to upgrade their knowledge to the first school leaving certificate level. Women Adult Education Program is organized by Christian Missionaries and Local Government Councils to improve literate and illiterate women (Obire et al., 2012). The Distance Education Program is organized by the States' Ministries of Education and some higher education institutions in the country. Sandwich Program is a university-based program for adults who are gainfully employed but come to learn at a specific period in a year. The Nomadic Education Programme is organized for

nomads who are mostly engaged in the cattle business. Because the nature of their business demands that they move from place to place, mobile education program was designed to take care of this peculiar situation.

Entertainment-Education in Nigeria

Radio can provide messages that contribute to audience relaxation and, at the same time, educate them. This format is what scholars call entertainment-education (Anele et al., 2019; Arroyave, 2008; Brown & Singhal, 1999; Khalid & Ahmed, 2014) or edutainment (Yaylaci & Yaylaci, 2016). Entertainment-Education is a program format whereby a station intentionally places educational content in entertainment messages. Brown and Singhal (1999) observed that Education-Entertainment (E-E) communication strategy "provides a means to overcome the limitations of entertainment-degradation and boredom-education types of programs" (p. 265). In Nigeria, for instance, most of the stations adopted entertainment format; however, the program offered by these stations can be adapted for instructional or educational purposes. For instance, Wale Adenuga's *Super Story* and *This Life* are categorized as entertainment program yet contain content that can teach morals, value systems, and acceptable behavior in society.

Khalid and Ahmed (2014) noted that the purpose of E-E interventions is to spark intrapersonal, interpersonal, and group conversations, contributing to the process of directed social change, which occurs at the level of an individual, community, or society. Brown and Singhal (1999) averred that E-E provides an opportunity to be socially responsible and commercially profitable and make education engaging and rewarding for audience members. As Brown and Singhal (1999) observed, E-E strategy is likely to go beyond its uses in mass communication to include classroom instruction, distance learning, and so on. Today, the strategy is adopted for non-literate adult audiences in Nigeria who lost the opportunity to attend school as young children. An example of such a program is *Radio Lagos Mooko Mooka*, designed explicitly for non-literate adults in Lagos State.

In addition to *Mooko Mooka*, Fugate (2019) noted that in 2017, the Northern Education Initiative Plus program (NEI Plus) used radio programs to promote learning and reading among educators and parents (who may be illiterate) in the Hausa Language. According to her, the radio skits that were developed used culturally relevant scenarios to help promote education. Khalid and Ahmed (2014) noted that E-E could be effective in social change in two ways: first, it could influence audience awareness, attitudes, and behaviors toward a socially desirable end and, second, it could influence the audience's external environment to help create the necessary conditions for social change at the group or system level.

The merit of using entertainment and educational (E-E) radio program is that while people are being entertained, they have also been educated in a relaxing manner. It is

believed that when educational content is laced with entertainment, the message is easily comprehended, and when E-E strategy is adopted in behavioral communication intervention, the new attitude being conveyed in the message has a better chance of being accepted.

Empirical Review

Scholars in communication education have published in areas relating to communication education, broadcasting, and literacy which are related to this current work. Mohammed (2013) studied the challenges and opportunities in the use of radio broadcast for development in Ethiopia: secondary data analysis. The study sought to identify significant impediments in using radio for development, determine how the impediments can be sorted out, and examine the unique opportunities available within Ethiopia's media landscape to employ radio broadcasting to fight poverty. Mohammed (2013) used data compiled by the Ethiopian Central Statistic Authority, Population and Housing Census and Population and Housing Census, Electoral Reform International Services (ERIS), Ethiopia Media Mapping, Audience Survey Ethiopia, and Ethiopian Broadcast Authority.

The study revealed that there were no strategic radio programs in Ethiopia. It revealed that the country's broadcast system embraced the open broadcast system, which follows what Moemeka (1981) described as "a shot-in-the-dark approach" to radio programming (p. 44). It also stated that the programs are of low quality, and the content tended more toward propaganda than development. The study concluded that the use of radio is unlikely to be successful in informing and educating the public as long as the broadcaster in Ethiopia employs an Open Broadcasting Strategy. The work of Mohammed (2013) is relevant to this study because a gap is identified that radio program may not be successful in educating the public in Ethiopia.

In another study, Chandar and Sharma (2003) researched on a radio program called "Bridges to Effective Learning through Radio" with Indira Gandhi National Open University as a case study. The survey focused on the audience's perceived need for a radio channel dedicated exclusively to educational programming and provided respondents with an opportunity to suggest possible program content and formats.

The study further revealed that when the respondents were asked about a radio station devoted to educational programming, most of the respondents indicated approval, a finding the researcher says supports the need for such educational broadcast service. However, when the respondents were asked whether radio should be used for educational purposes, nearly half of those surveyed did not favor the use of FM radio. The result showed that respondents viewed radio as a "news source domestically (inside India), and foreign (outside India)." Findings also showed that respondents did not want "fancy" anchors to host

educational broadcasts. Instead, respondents were generally looking toward Gyan Vani programs to fulfill personal and defined educational goals (e.g., certified vocational courses, coaching for entrance exams, current information on careers, and courses). Finally, the study revealed that educational radio programs are transmitted at a time not preferred by the target audience.

In another study, Alhassan (2012) sought to determine the factors affecting adult learning and their persistence by reviewing the literature on the concept of adult learning and systems theories. The researcher argued that adults needed institutional and environmental support to continue to graduation based on their learning experiences. Nwaerodu and Thompson (1987) carried out a study on the *use of educational radio in developing countries: lessons from the past*. The study identified and discussed three methods used by radio stations. The methods include farm radio forum, education and communication, dialogue, and innovation.

The researchers concluded that "there is no single best format for utilizing educational radio, adding that each situation in which educational radio is employed will be unique in some important ways which will impact instructional design considerations" (Nwaerodu & Thompson, 1987, para. 27). They noted that "there is a considerable support for the view that radio is an effective medium of instruction and its widespread availability in the developing countries underscores its educational potential and importance" (Nwaerodu & Thompson, 1987, para. 28).

Method

The descriptive survey method was adopted for the study. According to Babbie (2000), the use of survey "is probably the best method available to the social researcher who is interested in collecting original data for describing a population too large to observe directly" (p. 64). The researchers adopted a total population sampling technique otherwise called enumeration or census. This means that all the 505 registered adult learners under the *Lagos is Learning* Project at the time of the study were included in the study. The technique was adopted because the population is relatively small. The instrument of data gathering was questionnaire. The researchers conducted the survey after the learners have been exposed to the *Mooko Mooka* radio program. The researchers went to the learners' classroom during their face-to-face learning period to administer the questionnaire. Statistical Package for the Social Sciences (SPSS) software was used to analyze the data generated from the questionnaire administered.

Data Presentation

Analysis of data in Table 1 revealed that majority of the respondents have no prior exposure to any form of formal education before joining the adult class. This inference is

Table 1. Educational Level of Respondents Before Joining Adult Class.

Levels	Frequency	Percentage	Valid percentage
Primary 1–2	15	3	3
Primary 3–4	5	1	1
Primary 5–6	5	1	1
Home trained	210	41.6	41.5
None at all	270	53.5	53.5
Total	505	100	100

Table 2. Respondents Ability to Read and Write Before Joining an Adult Class.

Response	Frequency	Percentage	Valid percentage
Yes	25	5	5
No	480	95	95
Total	505	100	100

made because more than half of the respondents (53.5%) said they have no formal school training.

Even though a good number of the respondents indicated that they were trained at home (see Table 1), analysis of data in Table 2 revealed that almost all the respondents could not read or write before exposure to the program.

Table 3 revealed the analysis of the respondents' perceived literacy skills in the *Lagos is Learning* Project. The first statement indicates that most of the respondents possess the skill and ability to read the primer designed for the program after exposure to the program. From the second statement, data analysis revealed that learners' reading skills have improved based on the fact that they can read other books in the primer category.

Statement 3 focused on the ability of the respondents to write in Yoruba Language. One of the program's objectives is to teach learners to write in Yoruba Language. As the language of instruction on the program is Yoruba, Statement 3 sets out to determine if this objective was achieved. Based on the analysis of data in Statement 3, learners writing skills in Yoruba have increased considerably. Statement 4 was tailored to determine whether the respondents could read other instructional materials that are not similar to the primer. The analysis revealed that the majority of them agreed that there is a need for improvement in their reading skill.

Responses to each statement are designed on a 5-point-Likert-type scale. Items 1 and 2 focused on patterns of use of *Mooko Mooka*. The analysis revealed that the majority of the respondents use the program *Mooko Mooka* for revision purposes. Simultaneously, based on the analysis in item 2, a good number used the program to prepare ahead of classroom interaction.

On Statement 3, a good number of them said they hardly skip listening to the program. Statement 4 affirms that classroom instruction is vital to the success of the *Mooko Mooka*

program. The implication is that the respondents still needed classroom instruction with the radio instruction to achieve the objectives of *Lagos is Learning* Project. This finding perhaps revealed that the radio program is used in a complementary capacity. This is in line with Onabajo's (2000) submission that the mass media can create new perspectives to pave the way for improved new skills and better education (p. 11).

Statement 5 revealed that *Mooko Mooka* is crucial to learning. Statement 6 sought to find out whether educational radio broadcasting provides an alternative but convenient avenue for learners. The analysis revealed that respondents agreed that *Mooko Mooka* provides a convenient avenue for adult learning. Statement 7 sought to determine respondents' opinions on whether *Mooko Mooka* convinced them to join the face-to-face adult class. The analysis showed that it was not the program alone that convinced them to join the face-to-face adult class, but the desire to learn how to read and write. In Statement 8, some of the respondents agreed that the program in itself motivated them to learn. The overriding motivation was, however, the desire to read and write.

Table 5 deals with the number of times learners listen to *Mooko Mooka* in a week. The analysis revealed that almost all the respondents listen to it at least three times a week.

Discussion

Regarding the first objective, the study revealed that the majority of the respondents could not read or write before exposure to the program or joining the *Lagos is Learning* Project. This statement is supported by the fact that more than half of the respondents had no formal school training before joining the program, as revealed in Table 1.

On whether educational radio programs can influence adult literacy skill acquisition, the fact that learners use the program for both revision and preparation indicate that the quality of teaching on the program is outstanding and can influence skill acquisition. The quality of teaching, therefore, makes the program crucial to adult learners' literacy skill acquisition. This statement is supported by the fact that 56.4% indicated that the radio instructional program is crucial to their ability to read and write. Thus, *Mooko Mooka* can influence learning. This finding is congruent with that of Carroll's (1989) Model of School Learning assumption that good instructional design is vital to how a learner acquires new skills. The finding is also supported by Nwaerandu and Thompson's (1987) findings that "there is a considerable support for the view that radio is an effective medium of instruction and its widespread availability in the developing countries underscores its educational potential and importance" (Para, 28).

Two usage patterns of *Mooko Mooka* among respondents are evident. From the data gathered, most of the respondents strongly agreed that they listen to radio instruction to prepare for classroom instruction. In addition to the above, many of the respondents said they used *Radio Lagos Mooko Mooka*

Table 3. Frequency Distribution of Respondents' Perceived Literacy Skills After Exposure.

S/N	Variable	Excellent <i>F</i> (%)	Good <i>F</i> (%)	Satisfactory <i>F</i> (%)	Need some improvement <i>F</i> (%)	Need much improvement <i>F</i> (%)
	In the past 5 months, how would you rate yourself in the following areas after <i>Mooko Mooka</i>					
1	Ability to read classroom instructional materials	385 (76.2%)	75 (14.9%)	0 (0.0%)	45 (8.9%)	0 (0.0%)
2	Ability to read other textbooks in the primer category	140 (27.7%)	280 (55.5%)	5 (1.0%)	60 (11.8%)	20 (4.0%)
3	Ability to write in Yoruba Language	145 (28.7%)	90 (17.8%)	0 (0.0%)	200 (39.6%)	70 (13.9%)
4	Ability to understand other instructional materials not similar to the primer	55 (10.9%)	80 (15.8%)	0 (0.0%)	155 (30.7%)	210 (41.6%)

Table 4. Frequency Distribution of Respondents' Perceived Radio Instruction Use.

S/N	Items	Strongly Agree	Agree	Undecided	Disagree	Strongly disagree
		<i>F</i> (%)	<i>F</i> (%)	<i>F</i> (%)	<i>F</i> (%)	<i>F</i> (%)
1	I listened to <i>Mooko Mooka</i> to revise what I learnt in classroom	110 (21.8)	270 (53.5)	0 (0)	110 (21.8)	15 (2.9)
2	I listen to radio instruction to prepare for classroom instruction	315 (62.4)	75 (14.9)	0 (0)	80 (15.8)	35 (6.9)
3	I hardly skip <i>Mooko Mooka</i>	160 (31.7)	125 (24.8)	0 (0)	200 (39.6)	20 (3.9)
4	Classroom instruction becomes clearer after I listen to <i>Mooko Mooka</i>	85 (16.8)	155 (30.7)	0 (0)	160 (31.7)	105 (20.8)
5	Educational radio program, <i>Mooko Mooka</i> is very crucial to my learning	95 (18.8)	285 (56.4)	0 (0)	75 (14.9)	50 (9.9)
6	<i>Mooko Mooka</i> provides a convenient avenue for adult learning other than classroom instruction	160 (31.7)	140 (27.7)	0 (0)	135 (26.7)	70 (13.9)
7	Listening to <i>Mooko Mooka</i> convinced me to join adult class	85 (16.8)	102 (20.8)	0 (0)	170 (33.7)	145 (28.7)
8	Radio <i>Mooko Mooka</i> instructional approach motivates me to learn	110 (21.8)	115 (22.7)	0 (0)	120 (23.8)	160 (31.7)

Table 5. Frequency of Listening to *Mooko Mooka*.

Levels	Frequency	Percentage
Once	184	36.4
Twice	112	22.2
Thrice	205	40.6
Four times	4	0.8
Total	505	100

for revision. Again, 30.7% claimed classroom instruction only became clearer after listening to *Mooko Mooka*. By implication, therefore, the learners use *the Mooko Mooka* to prepare for or understand classroom instruction and use it for after classroom revision.

On whether the frequency of exposure can aid learning, the result showed constant exposure to *Mooko Mooka* influenced learning skill acquisition. This is supported by the

learners' ability to read classroom instructional materials and their improved ability to read other textbooks in the primer category, as presented in Table 3. This finding is in line with Hovland's message learning theory, which posits that a message's repetition increases learning. The more the instructor repeats the word or a radio instructional program is repeated, the more the message becomes clearer to the learner, the more the program's objective is achieved. Thus, the more the learners listen to the program every week, the more they learn.

The finding also shows that adult learners exposed to radio instructional programs are more likely to display significantly higher literacy skills than those who do not listen to the educational radio program. This finding is equally supported by John Carroll's Model of School learning, which he called the opportunity to learn: the amount (frequency) of time available to the learner for learning both in

the classroom and listening to the radio program at home determines comprehension.

Conclusion and Recommendations

Scholars, educators, and international organizations have emphasized education's central role in relation to poverty alleviation and social development. Education for all (men and women) has also been echoed by various governments, local and international organizations. Prominent among them is the United Nations through the United Nations Millennium Development Goals and, more recently, "2030 Agenda for Sustainable Development Goals."

Conclusively, a nation that aspires to attain a more dynamic national development must create an enabling environment for the education of its citizenry regardless of age and gender. By implication, education is the springboard for development, and a nation that fails to promote literacy for all will experience stagnation in all spheres.

Following the findings of this study, there should be designated venues where learners can come together and listen to radio educational programs instead of individual listening that is the model under the *Lagos is learning* Project. Also for the program *Mooko Mooka* to be beneficial, the frequency of transmission should be increased to 6 times a week – Wednesday at 16:05 hr (4:05 p.m. local time), a repeat broadcast at 22:10 hr (10:10 p.m. local time), Saturday at 13:00 hr (1:00 p.m. local time) with a repeat broadcast at 19:00 hr (7:00 p.m. local time), and Sunday at 13:00 hr (1:00 p.m. local time) with a repeat broadcast at 19:00 hr (7:00 p.m. local time). Finally, studies are recommended to find out whether results similar to *Mooko Mooka*'s study will be obtained.

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