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Pedagogical Use Of Social Networks For Learning Mathematics In Rural Secondary Education

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Abstract

In recent years, the accelerated growth of social networks has led to an unprecedented socio-educational development, forcing the actors involved in the educational process to align themselves with the demands of today's society, which requires a digitalized and interconnected education to achieve efficient learning. The objective of this study was to analyze the integration and the level of influence of the use of social networks in the learning process of mathematics in rural secondary education in the province of Huánuco, Peru. The research approach was quantitative; non-experimental design of cross-section and at a correlational level; the study sample consisted of 78 secondary school students, the data collection instruments were a questionnaire and an analytical rubric. The results highlight that 79.2% of students use cell phones, as well as social networks in a massive way; there is a positive correlation of the use of social networks with the learning of concepts, procedures and the development of favorable attitudes towards learning. It is concluded that social networks facilitate the realization of interactive and collaborative activities for the optimization of the teaching-learning process of mathematics in rural secondary education.

Keywords: *Teaching of mathematics; social network; learning of mathematics, secondary education, rural education.*

1. Introduction

Over the last decade, the use of the internet and social networks has changed the way people communicate and interact (Gonzáles, 2023). Marking an unprecedented milestone in the massive dissemination of information on the network, causing a revolution in education in recent years. They have become the ideal and most widely used means of communication and convening different types of activities; creating new forms of interrelation between people in general, these networks operate at different levels, such as personal use, relationships between groups of users, among other modalities; in all of them, the reason for their use is the exchange of information between people, either individually or in groups; since they allow for interactive and dynamic communication (Hutt-Herrera, 2012); oriented to the challenge of training for the exercise

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of full digital citizenship, as well as the enormous potential of technologies at the service of social transformation (UNESCO, 2021).

The concept of social network had its genesis in the field of sociology since the nineteenth century to analyze the interactions between individuals, groups, organizations or between societies. Then, in today's digital and knowledge society, the use of social networks (SR) has expanded to all areas of human activity, causing changes not only in communication processes, but fundamentally in the social relations that occur through the use of these technological resources and in the level of awareness that this causes (Pastor et al., 2022).

According to the Royal Spanish Academy (RAE, 2022) a social network is the "digital platform for global communication that puts a large number of users in contact", these networks are supported by the internet that are part of their existence from a very early age. For this reason, it is necessary and fundamental to use social networks correctly, which is a tool for coexistence and learning, but on many occasions they are used inappropriately; becoming tools with which students can carry out different activities and develop different skills, such as autonomous learning and collective learning, and other essential aspects, such as the selection of information from truthful and reliable sources; not only for the present, but applicable with priority in future contexts.

As Berlanga and Romero (2019) emphasize, the new context of interaction between people occurs through social networks, where it is necessary to analyze the relationship profiles and the level of relationship between the categories or dimensions of educational development. Since these networks have become means of generalized interaction and take on relevance for their usefulness for the deepening of studies and research, regardless of the gender and age of the users; enabling the development of personal, social and intellectual skills in a comprehensive way.

Educational social networks are notorious for their link to collaborative learning, the development of interactivity, digital and communicative skills, critical thinking, and academic performance (Alaslani & Alandejani, 2020; Santisteban et al., 2020). Significantly favoring the connection and interactions between students and teachers; but fundamentally between students and teachers through the teaching-learning process. Thus, this resource has become a driving force for educational innovation; encouraging students to transform their role, becoming the protagonists of their own learning, developing more confidence and interest in their own way of learning immersed in an environment of familiarity (Merchán-Carreño et al., 2018). However, before using any social network for education, it is essential to take into account the pedagogical and didactic objectives to identify the appropriate social network, so that the proposed objectives can be achieved.

The general objective of the study was to determine the level of relationship between the use of social networks and the learning of mathematics in rural secondary school students in the province of Huánuco of the Republic of Peru. This objective is operationalized through four specific objectives: 1) To identify the means through which rural secondary school students have access to social networks; 2) to analyze the level of use of social networks and their influence on the conceptual learning of mathematics; 3) to analyze the level of use of social networks and their influence on the procedural learning of mathematics; and 4) to analyze the level of use of social networks and their influence on attitudinal learning of mathematics in rural secondary school students.

2. Literature review

2.1 Social networks

Social networks in the educational field are adapted to the training of future citizens of the knowledge society; where teachers have the mission and challenge of incorporating ICT in

learning environments in correspondence to the educational context in which they deploy their teaching action, and must consciously contribute to the formation of skills and competencies that today's society needs (Cárdenas, 2018). These digital media take different modes of presentation, highlighting open and closed networks. Open social networks are those in which there is interaction and communication between any of the members of this network; for example, Facebook is an open social network because a person who is in a place can search for other users outside the region or country. The only thing that is required is that the interlocutor has a Facebook account to establish communication and generate relationships; this activity being common to all recognized social networks in the world.

On the other hand, closed social networks enable interaction mediated by permitted and restricted access to users belonging to the community. In other words, to use these social networks, you must have prior authorization (via WhatsApp or email, for example). Once inside the group, you can interact only with the members that make it up. When you create an account on this social network, you will only have access to the group or community that allowed you to enter. It is similar to creating a profile on Facebook, just to interact with the members of a group, and although there are many other groups within this great social network, you can only interact with the group that allowed you to create that account.

The main services offered by social networks consist of creating an account for the user, providing the personal information required for the case, and contacting other users to establish communication, applying different levels of privacy (UNIR, 2022). Here, the user of the social network can share images, files and other digital content, as required. Another type of social network allows the user to place avatars that represent their identity without the need to show themselves as they are (UNIR, 2022). Since, once your profile has been created, you can already establish communication with others who are within this same network, participating and making a community through the internet through the service offered by the social network where you are registered.

The decision to use social networks for educational purposes must be oriented to the target audience, therefore, before deciding on a social network, the relevance of its use for specific purposes and the technological support available to users must be taken into account. For example, which is the most widely used social network and the right one for learning mathematical content in rural secondary education? It is very likely that there are some that are more frequently used by students, so it is important to be clear about which one it is and why.

To define the social network to be used, it is plausible to make a diagnosis of the technological support available to students and decide on the social network that would be useful for them to study in the context of a discipline. This activity does not require much time and will be a good space for them to empower themselves from the use of the suggested social network to carry out their learning activities by themselves and feel important. With this action, there is a better knowledge of the predisposition of the target audience.

Once the user audience of the social network has been identified and defined, the next step is to determine the purpose that the teacher has through the use of the network; In this way, having knowledge of the user public and the purpose of use, social networks could be appropriately defined, with the aim of:

-Advise students regarding academic questions and doubts.

-Share content that may be useful for the development of their tasks or activities, both individual or group.

-Make summaries of the explanations received in class.

-Teach the proper use of technological tools for the study of a topic.

-Guide the strategies to be followed in the problem-solving process.

Then, in accordance with the target audience and educational objectives, the social network that best suits the purpose is chosen and that the students use efficiently in the process of learning mathematics, for this purpose, social networks (WhatsApp and Sangakoo) were chosen, in order to carry out collaborative and interactive activities by secondary education students in rural areas.

WhatsApp is an instant messaging application through mobile phones or cell phones; it allows the exchange of videos, images, texts, audio recordings, locations, documents, etc., as well as calls and video calls between several participants at the same time. This tool is essential to advise students regarding academic questions or doubts**,** since this application is used in their daily lives.

This social network is easy to access and use; through this digital medium it is possible to answer any questions or advice, you can write to the teacher, but you should consider setting rules of use for communication. It also makes it possible to share content for the development of activities, the teacher could send videos or images (indicating what for or when it is advisable to watch the video), so students can access the video when they need it and not only when the teacher sends the resource. Thus, it facilitates the improvement in the skills and competencies associated with the representation, communication, and resolution of mathematical problems, as well as in the strengthening of students' reading processes, including those with limited resources (Pitchford et al., 2019).

Sangakoo is an online educational platform designed to promote the learning of mathematics by doing mathematics through collaborative and creative activities. It is said that one knows mathematics when one has learned to solve problems in a collaborative environment, but in the social network Sangakoo knowing mathematics implies knowing how to create problems and solve them. This network is used to learn and teach, to accompany, to monitor and other activities aimed at the achievement of learning, it was created in order to contribute to the teaching-learning processes based on three strategies:

Collaborative methodology: based on problem solving and creation, based on the principle that students learn best when they are able to create their own mathematical problems, an approach based on conceptual learning that makes it possible to formulate related questions. On the other hand, the interaction between students, which makes it possible to help and teach each other, promoting an active learning environment where problems are discussed and solved as a team.

Resources and tools: it enables access to varied content, as it offers access to different topics of mathematics, which allows students to explore the mathematical content it requires in a comprehensive way. It also offers a virtual classroom to teachers so that they can manage their classes, assigning exercises and problems, and be able to monitor the progress of students in a personalized way.

Implementation in the classroom: carrying out practical activities where the student uses Sangakoo to create and solve problems in a group, improving their mathematical skills, reinforcing their social skills such as teamwork and communication; likewise, its integration into the instructional process can enrich traditional lessons in the mathematics class, making it increasingly interactive and dynamic.

In short, the Sangakoo social network is a tool for reinforcing learning in mathematics, it is based on three basic principles for learning: action, where students propose exercises to

solve them; collaboration, because two brains think better than one; and reaction, where challenges are made in solving problems.

2.2 Teaching and learning of mathematics

In the teaching process, mathematics is conceived as a language, provides a system of meanings, combines ordinary language with technical vocabulary, and helps interpret definitions, symbols, notations, models, charts, graphs, diagrams, rules, and procedures (Cruz et al., 2017). This teaching is subscribed to two currents: those that propose the development of mathematical competence as the purpose of its teaching and those that pursue the construction of mathematical knowledge as the basis of curricular organization. This teaching is aimed at developing: students' ability to identify and understand the role that mathematics plays in the world, to make well-founded judgments and to use and engage in mathematics in a way that meets their vital needs as a constructive, engaged and reflective citizen, inducing the student to analyze, reason and communicate effectively when proposing, formulating, solving, and interpreting mathematical problems in various situations (OECD, 2003).

Conceptual learning: through this type of learning, logical mental structures (concepts and relationships) are elaborated from the analysis or processing of information related to the object they want to learn about (Bruner 2001). It consists of the assimilation of the basic knowledge and concepts of mathematics that serve as a tool to address the problem-solving process. For Ricaldi (2024), the conceptual descriptors related to the emotional appraisal of pleasure shown by students in the study of mathematics have a greater incidence compared to the behavioral descriptors, since what is prevalent in the learning process of mathematics is the assimilation of mathematical concepts and propositions. This line is fundamental, the previous knowledge developed that facilitates the acquisition of new knowledge (Frasson et al., 2019).

Procedural learning, constitute ordered actions oriented to the achievement of a goal or skill that students acquire and put into practice in the problem-solving process, having concepts as a key tool, this learning requires to be taught differently from others, since procedures are actions towards the achievement of a goal. In a pedagogical work, the procedural is related to technical skills (measuring, reading, device manipulation techniques, carrying out practices in general and developing skills to carry them out), it also admits reasoning and learning strategies (Frasson et al., 2019).

Attitudinal learning, students understand an attitudinal content, they approach scientific knowledge in order to change their attitudes and build behaviors with consistency, the result of reflection on norms and values, here strategies must be used that lead to complex reflections and personal elaborations (Frasson et al., 2019).

3. Methodology

This research was carried out under the positivist paradigm, since it tries to explain the phenomenon of study through the formulation and testing of hypotheses. The research approach was quantitative, based on percentages, numerical measurements and statistical analysis of the data obtained through the application of the questionnaire. The study design was non-experimental, cross-sectional and correlational level; non-experimental, because it was aimed at knowing the possible relationships between variables, without deliberate manipulation of them, based on interpretations or observations to reach a conclusion (Gil, 2019); The correlational level was reflected in the analysis of the relationship between the variables: use of social networks and learning mathematics.

The study sample consisted of 78 rural secondary school students, chosen through the non-probabilistic procedure, taking into account the criterion of convenience and accessibility, whose elements share similar or homogeneous characteristics (Etikan et al., 2016). To be

admitted as a unit of analysis, it was taken into account that the population elements meet certain practical criteria, such as availability and ease of access, geographical proximity and willingness to participate in the study.

As a data collection instrument, the questionnaire was used, whose items were aimed at the investigation of individual and group skills in the use of Digital Social Networks. The questionnaire on social networks includes a total of 15 items divided into three dimensions of study: means of access to social networks, level of use for academic purposes and personal development, with the indicators (1 = low, 2 = medium, 3 = high, 4 = very high). The instrument for data collection for the variable learning mathematics was an analytical rubric with a grade from 0 to 20; Interpreted on the ordinal scale (excellent: 20 to 18, good: 17 to 14, regular: 13 to 11 and deficient: 10 to 0), the test consists of 15 items, 5 per dimension that are interpreted independently. Before being administered, in order to guarantee its validity and reliability, the questionnaire developed for the two study variables is subjected to an exploratory factor analysis. Cronbach's alpha results for the variable use of the social network $\alpha(RSD) = 0.893$; and for the variable learning of mathematics $\alpha(AM) = 0.857$. Whose mean 0.875 is in the range]0.8 , 0.9[consequently according to the scale recorded by (George and Mallery, 1995), both are considered good.

The collection of data and information is carried out from the administration of the questionnaire in person in rural secondary education educational institutions. The questionnaire applied was anonymous, since it did not include any data that would allow the identification of the participants and was applied in the facilities of the educational institutions included in the study and within the mathematics class schedule to favor the greater participation of the students. The fieldwork was carried out during the first semester of the 2024 academic year in one of the rural secondary educational institutions. Once the data collection process was completed through the questionnaire applied, they were transferred as a database to Excel for subsequent analysis.

The dimensions of the use of social networks for educational purposes and the learning of mathematics were taken into account. The data corresponding to the two study variables were collected in person in accordance with the objectives set; once the answers were obtained, the data were processed and analyzed using the Minitab 20 program. The descriptive analysis of the results of the survey on the use of social networks is carried out, presented in bar graphs and interpreted as a percentage; while the data obtained referring to the learning of mathematics were categorized into four levels (deficient, regular, good and excellent) of ordinal scale measurement. Then, the level of relationship or association between the use of social networks for educational purposes and the achievement of learning mathematics by secondary school students is determined using Spearman's rho, then the hypothesis test is carried out with 5% significance.

The study carried out is derived from the teaching research project carried out in the first semester of 2024. The students who participate in the study do so naturally during mathematics classes, consequently, they did so spontaneously and voluntarily, after obtaining authorization from the directors of the educational institution. During data collection, the confidentiality of the data to be included in the study was taken care of at all times.

4. Results

Based on the data obtained through the administration of the questionnaire for the two study variables, the descriptive results and correlational and inferential analysis are then systematized. These presentations allow the reader a better understanding of the findings obtained in this research.

4.1 Descriptive results

Regarding the use of a device or means of access to social networks, 79.1% of students use their cell phones to access social networks and carry out their academic activities, 16.7% do so through laptops, and 4.2% use their personal computers, Figure 1. This result corroborates that almost all students have a mobile device at their disposal and interact through it at all times, the students evaluated predominantly state that they connect to social networks from the place where they are, but subject to the satellite signal.

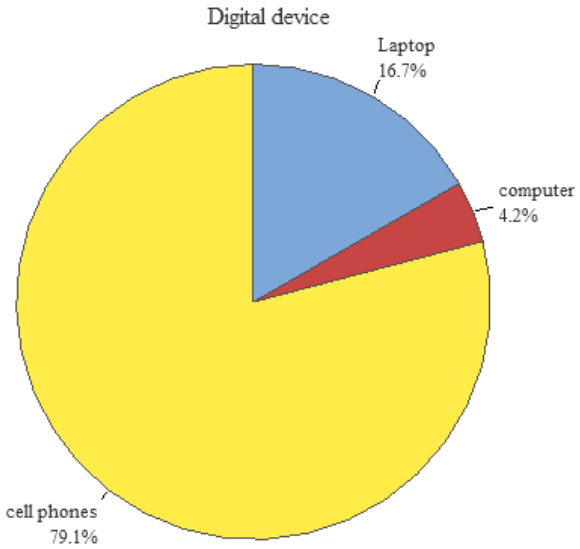

Figure 1. Devices for access to social networks in rural secondary school students.

Regarding the incidence of the use of social networks in their mathematics learning activities, 52.08% of students consider that it has a high incidence in the performance of their activities; followed by 27.08% of the participants who consider a very high relevance; on the other hand, 18.76% consider that it influences at a medium level, and only 2.08% state that social networks influence at a low level, Figure 2. These responses indicate that most consider the two social networks as effective resources for learning mathematical theories and concepts, the practice of logical procedures in problem solving, strengthening the level of motivation towards learning mathematics, as well as the strengthening of feedback activities aimed at achieving significant learning.

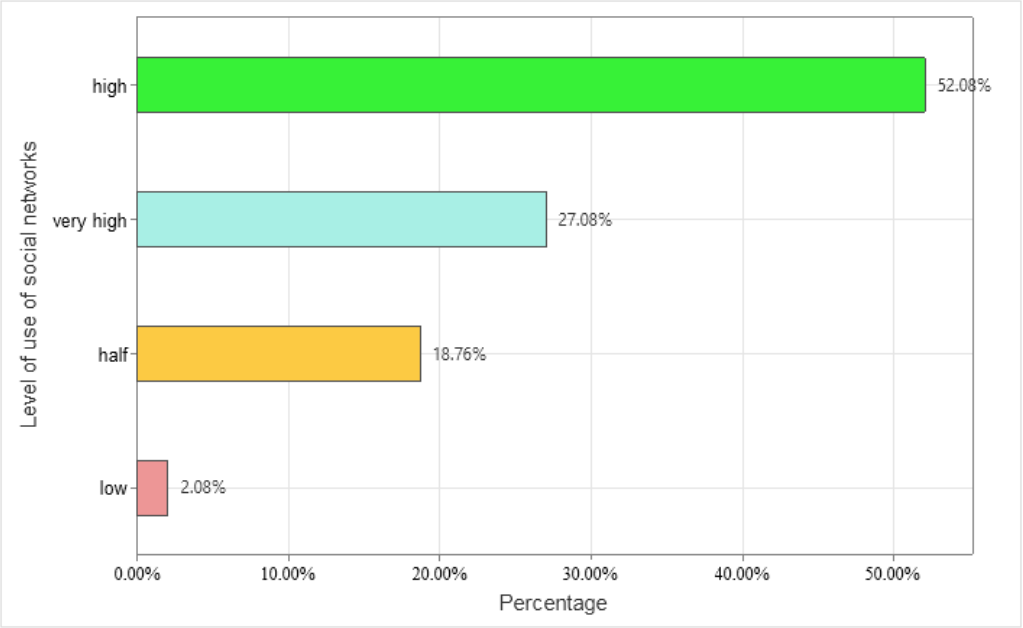

Figure 2. Level of acceptance of the use of social networks for the learning of mathematics.

In the dimension of conceptual learning achievement of mathematics, taking into account the categories established for the interpretation of the qualifiers through the analytical rubric, with respect to the measure of central tendency, the mean of the qualifiers was 15.146, while according to the dispersion measure the coefficient of variation is 19.55% and the Interquartile range of extension is 5. These results show that the use of the two social networks significantly influenced the conceptual learning of mathematics topics by rural secondary school students.

Regarding the achievement of procedural learning according to the grade categories established for evaluation through the analytical rubric, from the central tendency measure there was a mean of 14.667, according to the dispersion measure, the coefficient of variation of the qualifiers obtained was 19.45% and the interquartile range of an extension 5, Table 1. The findings show that the use of networks favors a level of procedural learning close to the lower limit of the good category (14,665), because it facilitates them to follow a logical sequence in the resolution of problems using mathematical concepts and properties in a pertinent way, by secondary education students.

Table 1. Descriptive statistics on the learning dimensions of mathematics.

Variable	N	Stocking	Desv.Est.	Variance	CoefVar	Q1	Q3	IQR
Conceptual learning	78	15.146	2.961	8.766	19.55	13.000	18.000	5.000
Procedural learning	78	14.667	2.853	8.142	19.45	12.000	17.000	5.000
Attitudinal learning	78	16.000	2.617	6.851	16.36	15.000	18.000	3.000

Also, as shown in Table 1, regarding the achievement of attitudinal learning, the descriptive results were: mean = 16, coefficient of variation of 16.36%, which indicates the variability of the qualifiers obtained is low, likewise, that 50% of the results that are located in the center of the distribution have an extension of only 3. This result shows that the use of social networks

for academic purposes leads to significant changes in the level of motivation, development of values and a positive attitude of rural secondary school students towards learning mathematics.

4.2 Correlational and inferential analysis

According to the data shown in Table 2, there is a high positive correlation between the use of social networks and the level of achievement in learning mathematics at the conceptual level, with Spearman's Rho = 0.713, and the p-value = 0.000 (< 0.05) indicates that there is a direct influence of the use of social networks as a tool for the study of mathematics in the learning of mathematical concepts in education rural secondary school. Regarding procedural learning, the coefficient (Rho = 0.333) indicates that there is a moderate positive correlation between the use of social networks in the performance of mathematical procedures, while the p value = 0.021 (< 0.05) shows that the use of social networks directly and moderately influences the algorithms and procedures followed during the learning activities of mathematical content. Also, Spearman's Rho = 0.812 reveals a high direct correlation between the level of use of social networks and the development of attitudes towards the learning of mathematics of the students and, the value p = 0.000 (< 0.05), ratifies that the use of social networks significantly influences the strengthening of motivation and attitude towards the learning of mathematics in secondary school students in rural areas. at 95% confidence.

Table 2. Spearman's Rho correlation and hypothesis contrast between the variables under study

Sample 1	Sample 2	N	Correlation	95% CI for ρ	P value
Social Network Use	Conceptual learning	78	0.713	(0.512; 0.840)	0.000
Social Network Use	Procedural learning	78	0.333	(0.046; 0.569)	0.021
Social Network Use	Attitudinal learning	78	0.812	(0.630; 0.888)	0.000

In the regression equations, table 3, it can be seen that there is a direct relationship between the use of social networks with the three levels of learning considered in this study; this influence being positive and direct on the three levels of learning; with a more significant incidence in the development of attitudes towards study, followed by the assimilation of mathematical concepts, and have less impact on the performance of procedural activities.

Table 3. Linear regression of social network use versus dimensions of mathematics learning.

Regression equation
Conceptual learning = 0.5546 + 0.8023 use of social networks
Procedural learning = 2.128 + 0.3304 social media use
Attitudinal learning = 0.5315 + 0.8393 use of social networks

5. Discussion and conclusions

5.1 Discussion

As social networks have become an inexhaustible source of information and a means for the exchange of information, as of 2020 new scenarios of use are developed with forced virtualization in the different educational activities, with emphasis on the teaching-learning process; where the realization of pedagogical strategies based on collaboration and interaction through symbolic language and images is encouraged. Therefore, the use of digital technology

through the massive use of social networks is presented as an ideal means to promote critical awareness in the construction of knowledge, personal and social identity, as well as in the ability to make decisions. (Escribano-Muñoz et al., 2024).

According to García and García (2012), the thematic development can be posted on the different social networks used, such as Facebook, WhatsApp and YouTube, so that parents can participate in the process of building knowledge; it is there that social networks have provided new teaching styles through roles, forms of intervention, scenarios and a wide range of activities. to meet educational challenges (García & García, 2012). Under this line of action, the study was able to verify the existence of a significant correlation between the use of social networks and the learning of mathematical concepts; since WhatsApp served for the exchange of information and Sangakoo for interactive learning. Both enabled students to elaborate their logical mental structures in a sustained way, based on concepts and relationships, based on the processing of information about mathematical content.

Through the use of social networks, students have the possibility of mastering the activities carried out correctly, consolidating the mathematical skills proposed to be developed and the achievement of significant learning (Saballet-Lara et al., 2022). Also, students have wide and greater possibilities for interaction, they can improve their personal skills, they can dedicate more time to study and consequently to greater assimilation of concepts and development of social and cognitive skills (Villalustre-Martínez, 2022). Likewise, the use of social networks as a teaching tool promotes the enhancement of students' cognitive development, facilitating a new way of representing reality, with learning methodologies (Carneiro et al., 2021). The three aspects considered were factually corroborated in the study carried out.

Educational resources in the context of social media can include education-specific platforms, collaboration and communication tools, and technological resources to access them (Jaimes-Barrera et al., 2021). On the other hand, procedural learning is constituted and sustained by the ability to execute sequences of action (procedures) to solve problems (Rittle-Johnson & Schneider, 2014). In accordance with these positions, in the study carried out through instant messaging and the performance of personal and group interactive activities, it was possible to promote in the students the ability to execute sequences of action to solve problems, on specific topics discussed in class; following mental actions that include rules, strategies, and algorithms to efficiently conclude the performance of mathematical activities through the systematic exchange of advances and interactive activities online.

Gonzáles (2023) states that social networks can improve student performance, collaboration, and intrinsic motivation in the learning process. On the other hand, Pedrosa (2020) considers that students feel good when they solve mathematical problems, a fact that is linked to the emotional aspect, generating a high level of motivation for them to like mathematics and a positive attitude towards their learning. In accordance with this position, secondary school students had an interest and predisposition for the use of social networks in the teaching-learning process of mathematics, significantly improving the level of self-motivation towards learning, as well as strengthening the performance of collaborative and cooperative activities, thus enhancing their conceptual and procedural learning in the topics of school mathematics.

In summary, rural secondary school students immersed in the context of social networks significantly developed the skills of finding, assimilating, interpreting and reproducing information, at the three learning levels considered for this study in accordance with their own learning styles and rhythms. Depending on the context, the knowledge they have and the efficient use of social networks, which allows them to exchange information on theories, properties, processes and mathematical procedures in symbolic and graphic format. Likewise, in this modality of learning mathematics, the strategy based on problem solving and

collaboration is strengthened through the use of social networks (SR), as a space for discussion and reflection so that the student optimizes their level of understanding of the concepts and develops their mathematical skills.

5.2 Conclusions

From the descriptive and inferential results presented, and in accordance with the research objectives considered for the study, the following conclusions were reached:

Regarding the first objective, most rural secondary school students have the internet and social networks as a means of incursion, this is justified because in rural areas they do not all have computers and laptops, but they do have at their disposal mobile phones with satellite signal; by this means, they use WhatsApp to exchange information and academic tasks with their peers and the teacher. for the performance of tasks in a collaborative manner; they also had an empowerment and sustained use of the social network Sangakoo, to carry out self-learning activities of the topics addressed in class in an interactive way.

Regarding the second and third objectives, the results show that there is a direct relationship between the use of the social networks WhatsApp and Sangakoo with the achievement of conceptual learning of mathematics by students in rural secondary education; contributing significantly to the assimilation of mathematics .the knowledge and basic concepts of mathematics that will serve as a tool to address the process of solving problems and exercises. Also, the use of the two social networks directly influences the achievement of procedural learning of mathematics, which is corroborated in the improvement of the ability to understand a problem by putting their skills, strategies and techniques afloat in the process of solving mathematical problems, by students of rural secondary education in the province of Huánuco-Peru.

Likewise, in response to the fourth objective, the existence of a high direct relationship between the use of the social networks WhatsApp and Sangakoo with the achievement of attitudinal learning of mathematics by students of rural secondary education in the province of Huánuco-Peru. Evidence, an ascending maturity and motivation towards study on the part of the students, which contribute significantly to the achievement of conceptual and procedural learning.

Overall, the evidence shown in the results allows us to pertinently affirm that the use of the social networks WhatsApp and Sangakoo to carry out educational activities in the area of mathematics directly influences the processes of learning concepts, carrying out mathematical procedures and strengthening the vocation towards the learning of mathematics by students of rural secondary education in the province of São Paulo. Huánuco-Peru. In addition to the three learnings mentioned, the students learned to work with discipline, to practice social values such as responsibility, punctuality, respect, the use of technologies and digital platforms; Likewise, the participation of parents in the learning activities was positive.

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