

Communicative Skills as a Result of Successful Intelligence

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Abstract

The current work began with the observation of the needs of high school students and their constant concern for the level of their development in communication skills according to the social standards of their context. Two instruments were used: The Sternberg (adapted) questionnaire (STAT), which evaluates the successful intelligence of students, where systematized quantitative information is collected as well as the teacher's observation card to the student, for the qualitative information of the three categories of communication skills. The design is of a mixed type. Several reference works were considered in order to contrast and triangulate according to experts' opinions.

Keywords: intelligence; skill; student; creativity.

Introduction

Peruvian education is involved in the complex process of really addressing the problems related to reading comprehension, the development of creativity and other aspects on an ongoing basis, with the intention of operationalizing and achieving better results. As the educational spectrum is so broad; and there is a prevailing need of students in basic education to develop communication skills and intelligence, it is necessary to analyze various aspects from a multidisciplinary perspective.

World education is evolving more rapidly, and the demand for the development of skills is becoming increasingly evident for secondary students in our context. But, the results in many cases are not so favorable nor the statistics encouraging. Mainly in Peru, many models and approaches to improve the quality of education have been implemented through Minedu, though it has not yet managed to break the statistical standards.

What is really happening in our schools? What are we not developing in our students? What do they require or need to reach a successful intelligence within the school framework? What are the communication skills that reveal that aspect? And how are they being linked to greater productivity in contexts where they are developing? How are skills linked to allow them to empower them towards that end?

The multidisciplinary perspective of the various authors regarding creativity, described at various levels, does not often correspond to teacher observations. There are other interrelated variables assumed in a complex construct (Cuenca, 1997, Sternberg, 1981, 1982, 1985A; De Bono, 1986, Martínez-Otero, 2005 and Cabrera, 2009) or complex-evolutionary transdisciplinary (De la Herrán, 1998 - 2011).

Others also agree on the issue of creativity as a process of thought and skills that all people have (Boden, 1994; Sternberg, 1997; Romo, 1997; Csikzentmihalyi, 1998), there is a question raised: whether it is creativity or intelligence, where many authors showed their position (Elisondo & Donolo, 2010)

For effects of this work it was observed that, third year students at secondary Metropolitan Lima in their aspirations to show the necessary communicative abilities to meet the demands of the present century; which are manifested in the development of intelligence, overcoming the barriers in the resolution of problems in an unusual way, also in knowing how to communicate in their daily lives, where they link knowledge, attitudes and values. (Hymes, 1967) Unfortunately, they do not always know how to do it, for their lack of expression, observation and empathy within the most significant among its elements. (Fernández, 1996, Moya, 2016). Likewise, within the educational spaces, students must be provided with the increase of their efficiency to respond successfully to any situation that is demanded of them and that they may be able to improve their own educational context, decreasing their vulnerability. (Mudarra and García-Salguero, 2016).

The main part of the human being is to be able to manifest himself socially, which means that he can get involved with everything that concerns life, implicit in the evolution of interpersonal relations and relating it to communication skills. (Betancourth, Zambrano, Ceballos, Benavides and Villota, 2017). The focus by competencies that they developed in the 1960s, both with application in various areas, among them: work, soft areas, hard areas, professional, etc., making a transcendental leap with the PISA tests (OECD) where the development of cognitive ability at different levels is sought. (Portillo-Torres, 2017). Later, in Jomtien (1990), with greater emphasis on this development, importance was given to life skills, which were promoted by the WHO (1993) at the beginning and later by UNESCO. (UNESCO, 2004).

The success of students is reflected in the joint work of the student, the school and the family. And therefore, the result of the Peruvian education that has taken in its hands the reins of changing the perspectives and horizons of the future of a country.

That is why it was required to know the statistics of these two aspects: successful intelligence and communication skills; aspects such as verbal fluency, empathic listening, facing criticism, interactions with others that attract me, keeping calm in embarrassing situations, speaking in public, dialogue with superiors, facing situations of ridiculous acts,

defending their rights, asking for forgiveness and rejecting petitions were taken into account. (Horse, Salazar and research team, 2017)

From this perspective, the following work of mixed concurrent investigation has as objective to explain somehow how the successful intelligence allows the development of the communicative ability of third year students at the secondary of Metropolitan Lima, that is to say, to present/display as the students of EBR of secondary present/display the level of clarity when expressing their ideas, thoughts, elocution within the classrooms in the compositional thing, experiential and contextual areas; since it is of extreme importance in an assertive communication within our developing society.

The relevance of research related to creativity, communication and social skills allows to transmit an assertive message in the solution of situations that are demanded of them. (Gil, 1998), can be activated and elevated to the extraordinary (Waisburd, 2009).

Intelligence and creativity

Intelligence is one of the greatest aspirations of parents, teachers and intellectuals who in one way or another seek to develop it in its diversity of them. A group of researchers focused on the development of successful intelligence with mind maps as a learning strategy for secondary school students. The results observed from a qualitative approach and according to the case study, achieved significant development in analytical, creative and practical intelligence. (Núñez, Novoa, Majo and Salvatierra, 2019).

In recent studies on creativity and intelligence, as well as its product of it in primary education, and with a sample of 66 students, the positive and significant correlation was shown. Ortiz, J., Llamas-Salguero, F., & López-Fernández, V. (2018), in turn, in the case of fluid intelligence correlated with creativity in primary school children in Chile, an increase in both variables was obtained. Gatica, A., & Bizama, M. (2019)

The way to develop creative and innovative competencies where solutions to proposed problems are presented is by focusing on the curriculum at its different levels. This way, it was possible to demonstrate the analysis of the verbal factor that had a higher normal scale than the non-verbal ones; the fluency and flexibility that are above originality within the creative factors. As a result, the significant positive relationship between intelligence and creativity correlated with academic performance (Jiménez, 2018; Ortiz, Llamas, & López 2018; Arhuiri, & Crisóstomo, 2018; Díaz, Llamas & López, 2016).

When relating creativeness with intelligence, it is important to know the different types of intelligences that a child can develop, which when identified can affect his academic performance or life in general. Gardner from Harvard classrooms established eight of them; that can be shown in a very particular way and be strengthened or balanced according to the case.

Ruiz, (2017) makes reference to the analysis of creativity from the perspective of the four domains like narrative, scientific, figurative and graphic; and the emotional, intellectual characteristics as well as the respective personal traits of those who are creative and in what way they influence on the academic achievements, The result obtained was the independent latency of the four types of creativity with a moderate correlation in some of them. Thus, concluding that the greater the intelligence, the greater the creativity as well.

Another investigation looked for the correlation between the variable creativity, multiple intelligences and academic performance; obtaining as a result the high development of the first variable and

an average level with respect to the advance of multiple intelligences; however, there is no relationship between the first two variables. (Martínez, Salguero & Fernández, 2016).

Intelligence

But what do you really mean by successful intelligence? In this respect, mention is made of the study carried out which confirmed the result of Sternberg's triarchic intelligence skills (2000) applied to 431 pupils in Murcia; which measured analytical, practical and creative intelligence and its pattern relations between them. Ferrando, Ferrándiz & Llor. (2016). So, Sternberg finds an emphasis in four aspects that the theory of Thurstone (1938) has not considered because he only evaluated the academic (analytical) aspect. The first is related to the personality linked to the individual's life; the second form of success is to capitalize on the strength and errors to adapt, train and choose the environment. Finally, it is when the analytical, practical and creative ability in each area of existence is in balance. Herrera, (2013).

A research work coined diverse investigations related to intelligence, personality and creativity; of which fifteen of them included inclusion criteria, standing out between the years 2000 and 2004; arriving at the conclusion according to bibliographical review that, intelligence and personality, as well as creativity are constructs that are not totally independent (Maureira, 2019).

The following research is under the constructivist pedagogical model, whose purpose was to enhance the linguistic intelligence of primary school students in one of the cities of Peru. It confirmed the difficulties with respect to oral expression and comprehension, as well as written production, including the development of their creativity. (Alvites, Torrichelli & Maria, 2019).

Elisondo (2018) proposed that a favorable environment can be built for learning in formal and non-formal spaces in a theoretical review of magazine and book publications by various authors, in a 10-year framework on creativity in relation to education. It was possible to establish thematic axes in order to see this articulation between both variables, identifying a phenomenon called complex, because it is linked between the subject and the object of culture in which it is appreciated in a different way. It presents creative suggestive contributions to foster the development of curriculum activities such as those that take place inside or outside the classroom.

The study that linked intelligence and the social environment was carried out on 311 participants from Chile and Argentina who answered a virtual survey called Origins and Definitions of (Mugny & Carugati, 1989) and the Factorial Value Scale (Schwartz, 1992), achieving an approach between human values and the representations of intelligence, as well as its adaptive function. (Marambio, De Montes, Valencia & Zubieta, 2015). So, it is favorable to know the communicative abilities as the effective dialogue, the active listening; which are going to influence in the social field and in the decisions that they take within the social communitarian group (Ortuño, Seller, & García, Miguel Rond, 2018).

The following research work is linked to the development of creative thinking, because it presents a proposal of cognitive strategies that allow the development of creative thinking. Basically, it develops the production of texts in the communicative area of the second year of high school students, from the community of the district of Nauta – Loreto (Purilla & María, 2019).

In addition, within the area of creativity there are threats that can arise or innovate; and that requires the skill to manage in any field. In the case of business for example is to make a new production or the

method that applies to it, also the ability to manage the business or successful venture.

Therefore, the development of creativity is no other matter than the overflowing intelligence in its cognitive amplitude, from its affective-social and physical part to give as a result the understanding and significance of what it is willing to present as its creation and to sustain it in all its creative process in the solution of situations that arise, which makes it unique, special and genuine.

On the other hand, an important aspect is the progress of the communicative abilities, the formative aspect, which will reflect the positive effects as the way of writing and speaking that raise each time their level until becoming a permanent activity, according to the studies carried out with strategies of information gathering, investigative seminars or monographic work (García, Paca, Arista, Bonifaz, Gómez, 2018).

At the same time, Ferres & Mazanet, (2017) investigated what they understand by communication among other questions related to the communicative process to the teachers of the area to confront them with the contributions of neuroscience. The sample consisted of 1272 people and the test applied with a 2.7% reliability. Its methodology was quantitative, and a descriptive survey was taken. Among its results, we could find the paradox of the advertisers as the most influential in the educators. The final reflections point out that communication as a skill is the ability to mobilize, involve and interact.

Taking as a reference the training by competence from the humanistic socio-cognitive paradigm, the research presented was to develop communication skills in the third year of secondary school in Tarma. The didactic proposal includes the necessary requirements to approach the curricular programming, as well as the units and sessions. (Condori Gutiérrez, Meza Salvatierra, & Solórzano Astete, 2019).

On the other hand, in the diversity of research related to the social manifestation and communicative ability of students; with a quantitative paradigm, they showed to have a level above the average and with a significant difference in terms of gender in some cases; and in others, cognitive and communicative skills did not influence teacher performance only with a significance level of 576; likewise, the confirmation of a better use of public speaking and the responsibilities of having an adequate emotional preparation for the achievement of aspired success (Betancourth, Zambrano, Ceballos, Benavides and Villota, 2017; Ascencios, 2017; Moya, 2016).

Linking creativity in the permanent cognitive process of verbal and figurative contents of divergent thinking by means of two instruments TTCT and PIC (test of creative imagination), they showed that they have no significant correlation in relation to their scores (García, Ferrando, Soto, Sáinz, & Prieto, 2017).

In reference to intelligence and creativity, we observe the contribution of Raymond Cattell (1971) under his theory of crystallised and fluid intelligence; the former conceived as a performance in his own life by the general intelligence he derives from himself, which grows to reach maturity in the adolescent stage and diminishes as physiological functions deteriorate; and by fluid intelligence (which allows him to have a reasoning) and not simply a learned mechanism, associated with personal knowledge, and with factors of a cultural and educational nature (Cabas-Hoyos, González-Bracamonte, & Hoyos-Regino, 2017). For Gardner, intelligence is associated with eight types and is not unique, so that creative functioning is a part or subset of multiple intelligences.

Guilford (1950) and Dedeboud (1992) accept that creativity is made up of eight skills, which are considered as its indicators: problem

awareness, fluidity, originality, redefinition, analysis, synthesis and penetration.

Later, sharing the thought of Csikszentmihalyi (1988, 1996) there are other elements that are incorporated as the domain (related to the specific knowledge of an area) and field (place where this knowledge is developed). Intelligence and creativity are associated, although there are others that are being incorporated. (Gardner, 2005; 2010), for that reason the dichotomy should not be broken nor be seen as isolated phenomena (Gardner, 1998 quoted by García, Hernández, Prieto, Martínez, Sainz, & Sánchez, 2010).

Furthermore, in order to explain the mental events related to the problem-solving issue, Guilford proposes the morphological explanatory model, which presents three categories or dimensions that are interconnected: contents, products and operations. The second corresponds to: units, classes, relations, systems, transformations and implications. And for operations, its categories are evaluation, convergent and divergent production, memory and cognition (Santos, 1986).

Sternberg, (1985) conceived creativity as a complex construct with the intervention of very transcendental cognitive and non-cognitive variables to increase creative thinking (Fernández and López, 199). Sharing the thought with Lubart (1995) they consider intelligence as one of the members that generate the creative thought within a set of seven primordial elements among them knowledge, environment, style in the thought, personality and motivation. That finally, in accordance with the theory of intelligence (triarchic), synthetic, analytical or compositional and practical skills for creative development operate together (Sternberg and O'Hara, 2005; Sternberg (2013) quoted in Paredes, 2019; Cabas-Hoyos, et al., 2017).

Creativity is the ability to solve unusual and unconventional problems, to relate and connect ideas, to contribute with something new from any discipline. Gardner, quoted by García, et al. (2010, p.100), Elisondo and Donolo, (2013); Torrence, (1979); quoted in Fernández et al. (1998); Barrón, (1969) and Stein (1964) quoted by Esquivias (2004), also qualified as the ability to reason in an abstract way, to have a quick understanding that comes from experience (Gonzales, 2011; Ardila, 2010)

Creativity is the capacity where ideas are related to produce new mental content that had not been previously formed in new schemes. Parmes, (1962); Drevdahl (1964) cited by Esquivias, (2004), as well as the sum of capacities with the intervention of the educational process are expressed in stimulation and intrinsic or internal and extrinsic or casual motivation giving as novel results (Velásquez, De Cleves & Calle, 2010 cited in Martínez et al. 2016, p.46).

Intelligence from a social perception is a construct because biological, motivational (values), cultural (family) aspects, capacities and character that the individual possesses intervene, where the adaptive capacity in the social environment plays an important role. Marambio, et al. (2015). Some authors link creativity with motivation and the cognitive and non-cognitive aspect, causing different skills to generate creativity in various domains and sub-domains (López, 1998; Damasio, 2001; Davis, 2011; Kaufman, 2012, cited in Lunke, & Meier, 2016).

Intelligence has a multiplicity of definitions according to the educational or psychological perception in which it is applied, however, today it can be observed in a unidiverse way where it covers interpersonal aspects, as well as intrapersonal, arriving to establish that it is the action of the reparative cognition in the emotions, social, historical, moral and cultural aspects. Pérez, V. (2016) also reconfigures

itself according to the passing of time due to the new approaches and theories that have emerged and in the practical application, whether personal or institutional (Cabas-Hoyos, et al., 2017)

Dimensions of intelligence

Likewise, Sternberg qualifies both talent and successful intelligence as an intentional skill, where they shape, adapt and select their environment for the purposes they wish to achieve in this society (Vinueza & Terán, 2018). And he divides his Triarchic Theory into three sub-theories which are related to each other: the componential sub-theory; (whose components are the meta components, of supervision, those of execution and the components of acquisition); the experiential sub-theory (which prioritizes internal and external aspects); and the contextual sub-theory observes intelligence, but from an angle of culture and environment (Llor, 2014).

There are three dimensions of intelligence considered by Sternberg, the first one is the analytical intelligence, also called academic intelligence, which implies making decisions with judgment in academia, the resolution of problems. The second one is the practical intelligence, which measures the capacity to use knowledge in problem solving, evaluates and judges the quality of the procedure. The third one is the creative intelligence, which gives value to the productive, creative, inventive capacity; which is manifested in three forms of language, verbal, figurative and numerical.

In other investigations, after applying the Aurora battery; which is an instrument to identify the students with high abilities and according to the results, it was proved the possibility of dividing the intelligence according to its function of content (verbal, numerical and figurative) of the subjects (Llor, 2014).

The communicative ability

Communicative ability is having the capacity to handle the affective repertoire and to relate to others and is linked to the person's emotional capacities, as well as the way of acting in the different situations that they have to live in interpersonal relationships (Pulido and Herrera, 2015; Betancourth, Zambrano, Ceballos, Benavides and Villota (2017); it is the competence that human beings have to manifest their way of thinking, emotions, desires and dreams or needs using expressive or oral language (Upegui, Velásquez, Ríos, Trujillo, & Salazar, 2011).

It is the knowledge of the linguistic code where information is expressed in a social environment and with the proper language used according to the regulations. (Romero, 2005) quoted in López, 2017).

The communicative ability is necessary for operating in any environment, because it makes possible to extend or to find solutions to complicated, embarrassing situations, and to overcome them. It is key for an effective communication being aware of the good use of the oral or written code, the idiosyncrasy of the people, as well as their customs and cultural aspects.

According to Fernández, (1996) quoted by Moya (2016,) he is going to consider three of the most important skills: expression, observation and empathy. The first one is referred to verbal fluency, coherence of emotions, synthesis, creativity among others. The second is empathic listening and emotional sensitivity. The third one is related to active listening, looking and interaction.

Lorenzo, Frías-Guzmán, and Vera (2014) specified as categories in communicative skills: receptive skills and productive skills. The first ones have as subcategories: reading and listening; the second ones: writing and speaking. The latter in turn is subdivided into oral expression, non-verbal expression and assertiveness.

Method

The present investigation is of a general concurrent mixed type. And in accordance with the knowledge of Hernández and Mendoza (2018) the study occurs in a diverse way. The purpose of this mixed concurrent study is to explain successful intelligence in the development of communication skills. For the qualitative branch, we seek to understand the process of successful intelligence in the development of communication skills that would be obtained through the teacher's observation card to his or her students; which allows for the collection and analysis of data from the sample within the context of the state and private schools. For the quantitative branch, the aim is to explain the development of the successful intelligence variable (compositional or analytical, experiential or creative, and contextual or practical) by means of the instrument validated by experts and in turn compared with the statistical results of the observation card. This study was carried out in different private and state schools at the secondary level in Metropolitan Lima.

Population and sample

The population of interest in the study is constituted by 2140 Peruvian students of third year of secondary school of the different educational institutions in state and private sectors represented by the seven ugeles of Metropolitan Lima, which represents the set of the units for obtaining information and conclusions that will be arrived at further in this report. (Palella & Martins 2012).

The sample was randomly probabilistic, since it was selected with ages between 14 and 15 corresponding to the third grade of secondary school without any cognitive and/or physical difficulties. (Rojas, 2015). A total of 384 male and female students from the capital city of Peru were reached.

Instrument

For the current research work, data collection was done using survey techniques and the observation. The adapted Sternberg Triarchic Abilities Test (STAT) (1993), which allows the collection of information in a systematic way and in the appropriate order. (Yumi y Urbajo, 2006) has the questions that refer to one of the variables with the objective of measuring it. (Hernández, R., Fernández, C. & Baptista, P. (2014) It comprises 20 questions covering the evaluation of all three dimensions of successful intelligence: the componential or analytic, the experiential or creative dimension and the contextual or practical dimension.

The other instrument is an observation sheet of the communicative skills in their three categories: oral expression, listening and empathy, each of them with their respective items. For both instruments the Cronbach's alpha reliability (1959) was used to measure the internal consistency, obtaining 0,792 reliability on the first instrument, and for the second one 0,749 reliability.

Results

The descriptive statistics shown in table 1 indicate that the variation coefficient is lower than 30% in all cases, indicating homogeneous data in the variables and dimensions.

In table 2, according to the results of the application of the test of communication skills, the communicative skills indicate that 17.2% present a low level, 66.1% present a regular level and 16.7% present a good level; in the expression dimension 11.2% present a low level, 67.4% present a regular level and 21.4% present a good level; In the listening dimension, 9.4% present a low level, 24.5% present a regular

level and 65.6% present a good level; in the empathy dimension, 8.1% present a low level, 19.8% present a regular level and 71.9% present a good level.

In Table 3, according to the results obtained with the application of the questionnaire test Sternberg Triarchic Abilities Test (STAT) adapted (1993), Sternberg indicates that 0,0% present an inadequate level; 13,5% show a somewhat inadequate level and the 86,5 % show an adequate level; in the analytic dimension 0,5% indicate inadequate, 45,1% show a somewhat inadequate level and 54,5% present an adequate level; in the creative dimension 6,3% are inadequate, 47% present a somewhat inadequate level while 46,4% show an adequate level; in the contextual dimension 2,9% show an inadequate level, 51,3% show a somewhat inadequate level and 45,8 show an adequate level.

Information processing with statistical software indicates the existence of a moderate correlation between intelligence-success and

Table 1. Descriptive statistics underpinning successful intelligence and communicative skills.

	N	Minimum	Maximum	MediaDev.	Deviation Variation	coefficient
Communicative						
Skills	384	41,00	92,00	6,99,974	9,79,383	13.99
Expression	384	23,00	54,00	3,89,323	5,41,206	13.9
Listening	384	5,00	25,00	1,66,667	3,55,095	21.31
Empathy	384	4,00	20,00	1,43,984	3,12,241	21.69
Successful						
Intelligence	384	40,00	90,00	7,03,672	9,47,268	13.46
Analytic	384	10,00	30,00	2,17,630	3,35,359	15.41
Creative	384	6,00	30,00	2,06,458	4,48,200	21.71
Contextual	384	13,00	40,00	2,79,583	4,44,853	15.91
Nvalid (by list)	384					

Table 2. Levels of the Communicative skills and their dimensions.

	Communicative Skills		Expression		Listening		Empathy	
	f	%	f	%	f	%	f	%
Low	66	17.2	43	11.2	36	9.4	31	8.1
Regular	254	66.1	259	67.4	94	24.5	76	19.8
Good	64	16.7	82	21.4	252	65.6	276	71.9
Total	384	100	384	100	384	100	384	100

Table 3. Successful intelligence levels in Third-Year High School Students

	Successful intelligence		Analytic		Creative		Contextual	
	f	%	f	%	f	%	f	%
Inadequate	0	0	2	0,5	24	6,3	11	2,9
Somewhat inadequate	52	13,5	173	45,1	182	47,4	197	51,3
Adequate	332	86,5	209	54,5	178	46,4	176	45,8
Total	384	100.0	384	100.0	384	100.0	384	100.0

Table 4. Contrasting hypotheses: general and specific

Hypothesis system	Variables	Correlation coefficient (Spearman)	Bilateral significance	Level
General Hypothesis	Inteligencia exitosa * Communicative abilities	0,619	0,000	Moderate
Specific Hypothesis 1	Successful intelligence* Expression	0,838	0,000	Strong
Specific Hypothesis 2	Successful intelligence* Listening	0,225	0,000	Low
Specific Hypothesis 3	Successful intelligence* Empathy	0,270	0,000	Low

communication skills with a Spearman rho of 0.619 and a statistical significance of 0.000. Likewise, it indicates the existence of a strong correlation between intelligence-success and expression dimension with a Spearman rho of 0.838 and a statistical significance of 0.000. On the other hand, it indicates the existence of a low correlation between intelligence-success and the listening dimension with a Spearman rho of 0.225 and a statistical significance of 0.000. Also, it indicates the existence of a low correlation between intelligence-success and the empathy dimension with a Spearman rho of 0.270 and a statistical significance of 0.000.

The qualitative analysis of the research is framed by a multi-case, including eight students from the José Marelló institution in the district of La Molina. In the category called 'expression', in verbal fluency, the students showed spontaneity and development of their language with adequate and relevant handling of synonyms and analogies. However, there were cases where the student showed reserve, using few sentences in communicative acts.

With reference to the clarity of the message, a group of students showed a lack of argumentation and contradictory speech in the emission of the message. Regarding the argumentation, most of them showed acceptable deductive levels, according to their educational level, but another group lacked solid arguments in their developed content. In this case, the student Juan is capable not only of establishing his thesis with deductive and inductive arguments, but also of counter-arguing.

In the exemplification, students are able to exemplify in a clear and varied way about a certain subject, though in some cases these examples are not relevant. Concerning the formulation of questions, most students have presented structured, reflective questions that generate argumentative dialogue, while others are literal and not reflective.

With regard to emotional coherence, when students express themselves orally, they present an adequate exposition of their ideas, without ambiguity and controlling their emotional state, using logical connectors that differentiate the situation. He/she establishes the topic to be exposed and subtopics to be developed. Uses anaphoric and cataphoric references, thus avoiding ambiguity.

The eye contact indicated that the students established communication with the public, in a safe way and without fear. Some showed signs to the contrary. The non-verbal communication, they evidenced it with ease, both with hands and facial shape, scenic displacement and voice tone according to the requirements of the situation.

In the 'listening' category, in the empathic listening, the majority was adequate with their interlocutors. In other cases, there is not the adequate attention to their interlocutors, they run over the conversations or lack of participation. In the detection of emotions, control of emotions that maintain the calm is evidenced. On the other hand, in other students, nerves act strongly which makes them lose security and control of their emotions.

In the 'empathy' category, the look at the audience is kept in panoramic form, paying attention to all the students. Without this capacity concentration or seriousness in speech is not allowed. With reference to active listening, he acts criterially raising solutions and alternatives to the treated subjects. Other students present limitations in these capacities. In the interaction he shows an adequate assertive communication, that allows the interaction with his listeners; others are reserved, limiting this kind of communication.

Discussion and Conclusions

The statistical results indicate strong and low correlations in their dimensions, with indices that stand out, as in the expression, not being so in other cases. When the analysis of the expression category is carried out, it can be established that the students have achieved development in the subcategories in a majority manner, where it is evident that they have developed both intelligence and expression in its diverse components. This is consistent with studies where creativity is an important factor for the development of communicative skills as explained by Boden, (1994) and Sternberg, (1997). Likewise, the human being when manifesting himself socially involves interpersonal relations and his communicative ability Betancourth et al (2017).

For this reason, it is important to consider aspects such as verbal fluency, empathic listening, facing criticism, interactions with others that attract me, keeping calm in embarrassing situations, speaking in public/dialogue with superiors, facing situations of ridiculous acts, defending their rights, asking for forgiveness, rejecting petitions (Caballo et al 2017).

Of relevant importance is the finding made by Núñez et al (2019) as he focused on the development of the successful intelligence with the mental maps as a strategy of learning, and whose result managed to develop significantly in the analytical, creative and practical intelligence. Referring to verbal fluency, a positive relationship was found between intelligence and creativity correlated to academic performance (Jiménez, 2018; Ortiz, Llamas & López, 2018; Arhuiri & Crisóstomo, 2018; Díaz, Llamas & López, 2016).

The role of intelligence is important insofar as it allows the personality to be properly linked to the life of the individual, capitalizing on strengths and errors for adaptation, formation and choice of environment. This implies the balance of analytical, practical and creative ability in each area of existence.

With reference to listening, the correlations between successful intelligence and listening were of a low level, and this reflects how empathic listening is in the adequate majority with its interlocutors. In other cases, there is not the suitable attention to their interlocutors, it runs over the conversations or lacks participation. In the detection of emotions, control of emotions that maintain calm is evident. On the other hand, in other students, nerves act strongly which makes them lose security and control of their emotions. This to some extent contradicts the statements of Waisburd (2009) and Gil (1998) who express the importance of creativity, communication and social skills that allow the transmission of assertive messages in the solution of situations that are demanded of them.

This confirms to some extent the findings of García, et al (2018) when they state that the progress of communication skills reflects the positive effects such as the way of writing and speaking that raise their level each time until they become a permanent activity.

In the 'empathy' category, he allows concentration or seriousness in his speech. The active listening acts criterially raising solutions and alternatives to the treated subjects. In the interaction he shows an adequate communication, assertive that allows the interaction with his listeners, others are reserved, limiting this communication.

For Alvites, et al (2019), the difficulties were confirmed with respect to oral expression and comprehension, as well as written production, including the development of their creativity, where one could infer a lack of development of intelligence.

Communicative skills imply the ability to handle the affective repertoire and to relate to others and are linked to the person's emotional capacities, as well as the way of acting in the different situations they must live in interpersonal relationships. It is the competence that human beings must manifest their way of thinking, emotions, desires and dreams or needs using expressive or oral language. This is strongly related to the development of intelligence, where the Sternberg model has shown its effectiveness.

This research presents the following conclusions: first: a moderate correlation between successful intelligence and communication skills with Spearman's rho of 0.619 and a p-value of 0.000; second, a strong correlation between successful intelligence and expression with Spearman's rho of 0.838 and a p-value of 0.000; third, a low correlation between successful intelligence and listening with Spearman rho of 0.225 and a p-value of 0.000; fourth, a low correlation between successful intelligence and empathy with Spearman rho of 0.270 and a p-value of 0.000.

References

1. Alvites, G; Torrichelli, S. & María, L. (2019). *Modelo pedagógico constructivista para potenciar la inteligencia lingüística de los estudiantes del quinto grado de educación primaria de la IE N° 10003 de Chiclayo* (Tesis doctoral). Universidad Pedro Ruiz Gallo, Lambayeque.
2. Amenazas a la innovación. (2014, Oct 06). *Noticias Financieras*. Recuperado de <https://search.proquest.com/docview/1586093692?accountid=37408>
3. Arhuiri, P., & Crisostomo, E. (2018). *Inteligencia, creatividad y rendimiento escolar en estudiantes de secundaria del Distrito de Chala-Caraveli*. (Tesis) Universidad Nacional de San Agustín de Arequipa. Arequipa,
4. Ascencios, T. (2017). *Habilidades comunicativas, cognitivas y desempeño docente en el distrito de Carabayllo- 2015*. (Tesis doctoral) Universidad Cesar Vallejo, Lima
5. Betancourth, S., Zambrano, C., Ceballos, A. K., Benavides, V., & Villota, N. (2017). *Habilidades sociales relacionadas con el proceso de comunicación en una muestra de adolescentes*. *Psicoespacios*, 11(18), 133-147. doi: <http://dx.doi.org/10.25057/21452776.898>
6. Cabas-Hoyos, K., González-Bracamonte, Y., & Hoyos-Regino, P. (2017). *Teorías de la inteligencia y su aplicación en las organizaciones en el siglo XXI: una revisión*. *Clío América*, 11(22). Doi: <http://dx.doi.org/10.21676/23897848.2445>
7. Condori, S. G; Meza, M., & Solórzano, N. C. (2019). *Propuesta didáctica para el desarrollo de habilidades comunicativas en estudiantes de tercer año de educación secundaria de una institución educativa de Tarma, Junín*. Recuperado de <http://repositorio.umch.edu.pe/handle/UMCH/595>
8. Elisondo, R. C., & Donolo, D. S. (2010). *¿Creatividad o inteligencia? That is not the question*. *Anales de Psicología/Annals of Psychology*, 26(2), 220-225. <http://dx.doi.org/10.6018/analesps>
9. Elisondo, R. M. (2018). Creatividad y educación: llegar con una buena idea. *Creatividad y Sociedad* (27) 145-166, Recuperado de http://www.creatividadysociedad.com/articulos/27/6.Creatividad%20y%20educacion_llegar%20con%20una%20buena%20idea.pdf
10. Esquivias, M. T. (2004). Creatividad: definiciones, antecedentes y aportaciones. *Revista digital universitaria*, 5(1), 1-17. Recuperado de http://www.revista.unam.mx/vol.5/num1/art4/ene_art4.pdf
11. Ferrando, M., Ferrándiz, C., & Llor, L. (2016). Successful intelligence and giftedness: An empirical study. *Anales De Psicología*, 32(3), 672-682. doi: <http://dx.doi.org/10.6018/analesps.32.3.25943>
12. Fernández, R. F., & López, M. F. P. (1998). Estudio de tres modelos de creatividad: criterios para la identificación de la producción creativa. *Faisca: Revista de altas capacidades*, (6), 67-85.

13. García Bedoya, N., Paca Vallejo, N., Arista Santisteban, S., Bonifaz Valdez, B., & Gómez Arteta, I. (2018). *Investigación formativa en el desarrollo de habilidades comunicativas e investigativas*. *Revista De Investigaciones Altoandinas*, 20(1), 125-136. doi: <http://dx.doi.org/10.18271/ria.2018.33>
14. García, C. F., Ferrando, M., Soto, G., Sáinz, M., & Prieto, M. D. (2017). *Running ahead: Pensamiento divergente y sus dimensiones: ¿De qué hablamos y qué evaluamos?*. *Anales de Psicología/Annals of Psychology*, 33(1), 40-47. <http://dx.doi.org/10.6018/analesps.33.1.224371>
15. García, M. R. B., Hernández, D., Prieto, M. F., Martínez, G. S., Sainz, M., & Sánchez, M. D. P. (2010). *Creatividad, inteligencia sintética y alta habilidad*. *Revista electrónica interuniversitaria de formación del profesorado*, 13(1), 97-109.
16. Gardner, H. (2005). *Las cinco mentes del futuro: un ensayo educativo*. Barcelona: Paidós.
17. Gardner, H. (2010). *Mentes Creativas. Una Anatomía de la Creatividad Humana*. Barcelona: Paidós.
18. Gatica, A., & Bizama, M. (2019). *Inteligencia fluida y creatividad: un estudio en escolares de 6 a 8 años de edad*. *Pensamiento Psicológico*, 17(1), 113-120. Doi: <https://doi.org/10.11144/Javerianacali.PPSI17-1.ifce>
19. Hernández, N. L., Frías-Guzmán, M., & Martínez, M. L. V. (2014). *Las habilidades comunicativas en el plan de estudio D de la Licenciatura en Ciencias de la Información*. *Revista Cubana de Información en Ciencias de la Salud (ACIMED)*, 25(4), 410-425. Recuperado de: <https://www.medigraphic.com/cgi-bin/new/resumen.cgi?IDARTICULO=52876>
20. Hernández, R., Fernández, C. & Baptista, P. (2014). *Metodología de la investigación*. México: Editorial Mc Graw Hill.
21. Herrera, J. L. K. (2013). *Rendimiento académico, habilidades intelectuales y estrategias de aprendizaje en universitarios de Lima*. *Liberabit*, 19(2), 277-288.
22. Jiménez Guevara, E. S. (2019). Implementación de estrategias didácticas desde el enfoque comunicativo para el desarrollo de la comunicación oral, en el contexto del Reajuste Curricular 2016 (Tesis). Universidad Central de Ecuador, Quito.
23. López Ramírez, D. S. (2017). *Autoestima y habilidades comunicativas en estudiantes del IV ciclo*, *Instituciones Educativas, Red 06, Huaral 2017* (tesis de maestría). Universidad Cesar Vallejo, Lima
24. Lunke, K., & Meier, B. (2016). *Disentangling the impact of artistic creativity on creative thinking, working memory, attention, and intelligence: Evidence for domain-specific relationships with a new self-report questionnaire*. *Frontiers in psychology*, 7, 1089. Doi : <https://doi.org/10.3389/fpsyg.2016.01089>
25. Llor, L. (2014). *Nuevas perspectivas en la evaluación cognitiva: inteligencia analítica y práctica*, (Tesis Doctoral). Universidad de Murcia, Cartagena, Colombia.
26. Marambio, K., de Montes, L. G., Valencia, J. F., & Zubieta, E. (2015). *Representaciones sociales de inteligencia y los valores culturales que las enmarcan/Social representation of intelligence and the cultural values that represent them*. *Psicoperspectivas*, 14(3), 45-55.
27. Martínez, C. D., Salguero, F. L., & Fernández, V. L. (2016). Relación entre creatividad, inteligencias múltiples y rendimiento académico en alumnos de enseñanza media técnico profesional del área gráfica: Programa de intervención neuropsicológico utilizando las TIC. *Revista Academia y Virtualidad*, 9(2), 3. Doi: <http://dx.doi.org/10.18359/ravi.1891>
28. Mayo, I. C. (2014). Nuevas inteligencias, nuevos aprendizajes. *Educatio Siglo XXI*, 32(1), 291-294. Recuperado de <https://search.proquest.com/docview/1658734758?accountid=37408>
29. Maureira Cid, F. (2019). Relación de la inteligencia con la personalidad, funciones ejecutivas y creatividad: una revisión del 2000 al 2017. *Revista Electrónica de Psicología Iztacala*, 21(4), 1453-1474. Recuperado de <https://www.medigraphic.com/pdfs/epsicologia/epi-2018/epi184h.pdf>
30. Motta-Ávila, J. H. (2017). La actitud de escucha, fundamento de la comunicación y la democracia en el aula. *Cuadernos de Lingüística Hispánica*, (30), 149-169.
31. Moyá Ruíz, M. T. (2016). *Habilidades comunicativas y comunicación política* (tesis doctoral). Universidad Miguel Hernández, España.
32. Mudarra, M. J., & Garcia-Salguero, B. (2016). Habilidades sociales y éxito académico: expectativas de los profesores de educación secundaria. *REOP-Revista Española de Orientación y Psicopedagogía*, 27(1), 114-133.
33. Núñez, L., Novoa, P., Majo, H., & Salvatierra, A. (2019). Los mapas mentales como estrategia en el desarrollo de la inteligencia exitosa en estudiantes de secundaria. *Propósitos y Representaciones*, 7(1), 59-82. Doi: <http://dx.doi.org/10.20511/pyr2019.v7n1.263>
34. Ortiz, J. J. C., Llamas-Salguero, F., & López-Fernández, V. (2018). Neuropsicología y educación: creatividad, inteligencias múltiples y rendimiento académico en educación primaria. *Enseñanza & Teaching*, 36(2), 123-143. doi: <http://dx.doi.org/10.14201/et2018362123143>
35. Ortuño, E. I., Seller, E. P., & García, L., Miguel Rond. (2018). La comunicación en mediación social y su oportunidad para el desarrollo comunitario. *Comunitania*, (16), 159-184.
36. Paredes, R. E. (2019). Competencia argumentativa oral desde el modelo metadiscursivo en estudiantes de segundo ciclo de educación superior. *HELIOS*, 2(2). 12-25 Recuperado de <http://journal.upao.edu.pe/Helios/article/view/1031>
37. Pérez, F. L., Nahón, A. E., & Cerdá, M. D. C. B. (2019). Instrumentos para medir la habilidad de comunicación: una revisión sistemática/Instruments to Measure Communication Skill: A Systematic Review. *RIDE Revista Iberoamericana para la Investigación y el Desarrollo Educativo*, 9(18), 102-128. <http://www.ride.org.mx/index.php/RIDE/article/view/414>
38. Pérez, V. M. (2016). *Alcance socioeducativo de la teoría de la inteligencia unidiversa/social educational scope of the theory of inteligencia unidiversa*. *Holos*, 32(5), 116-126. doi: <http://dx.doi.org/10.15628/holos.2016.4731>
39. Prieto, D., Ferrándiz, C., Ferrando, M., Bermejo, M. (2015). La batería Aurora: una nueva evaluación de la inteligencia exitosa. *Revista de Educación*. Recuperado de <https://books.google.com.pe/books?hl=es&lr=&id=TklbCgAAQBAJ&oi=fnd&pg=PA141&dq=inteligencia+exitosa+Sternberg+2013&ots=D6f6HRxvmH&sig=AVJbflUt5FmSUqOF5-XPjYCGkA#v=onepage&q=inteligencia%20exitosa%20Sternberg%202013&f=false>
40. Purilla, E., & María, R. (2019). *Propuesta de programa de estrategias cognitivas para desarrollar el pensamiento creativo en la producción de textos en el área de comunicación de los alumnos del 2º grado de educación secundaria de la Institución Educativa N° 60555 Río Marañón-Margen Izquierda comunidad Payorote distrito Nauta provincia Loreto, región Loreto 2015* (Tesis de amestría). Universidad Nacional Pedro Ruiz Gallo, Lambayeque.
41. Rojas Cairampoma, M. (2015). *Tipos de Investigación científica: Una simplificación de la complicada incoherente nomenclatura y clasificación*. *Revista Electrónica de Veterinaria*, 16(1), 1-14.
42. Sampieri, R. (2014). *Metodología de la Investigación*. 6ta Edición MrGraw-Hill.
43. Santos, M. R. (1986). Treinta y cinco años del pensamiento divergente: teoría de la creatividad de Guilford. *Estudios de psicología*, 7(27-28), 175-192.
44. Sternberg, R. J. (2005). *Creatividad e inteligencia*. CIC. Cuadernos de Información y Comunicación, (10), 113-149. Recuperado de <https://www.conrecursos.org/wp-content/uploads/2019/01/Creatividad-e-inteligencia.pdf>
45. Torres, M. (2017). Educación por habilidades: Perspectivas y retos para el sistema educativo. *Revista Educación*, 41(2) 1-13. Doi:<http://dx.doi.org/10.15517/revedu.v41i2.21719>
46. Villegas, L (2005). *Metodología de la investigación pedagógica*. Editorial San Marcos.

47. Vinueza, T., & Terán, J. E. C. (2018). *Desarrollo del talento en la educación formal*. *Revista Electrónica de Investigación y Docencia*, 20(1), 73-90 doi: <https://dx.doi.org/10.17561/reid.n20.5>
48. Waisburd, G. (2009). *Pensamiento creativo e innovación*. *Revista Digital Universitaria*, 10(12). 1-9. Recuperado de <http://www.revista.unam.mx/vol.10/num12/art87/art87.pdf>