



# Innovative Leadership of Principals in the Implementation of Senior High School Program in Philippines

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. Author EM Ortega designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. He also managed the analyses of the study. Author NJBP managed the literature searches. All authors read and approved the final manuscript.*

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## **ABSTRACT**

This sequential explanatory mixed methods research design aimed to explore the innovative leadership practices of principals in the implementation of Senior High School Program in the Division of Davao del Sur. Using purposive sampling, ten (10) secondary school heads answered the validated and tried interview guide which results were coded, interpreted, and clustered into leadership, individual attributes, psychological climate for innovation and influence to the stakeholders based on the theory, Determining Individual Innovative Behavior: A Hypothetical Model by Scot and Bruce (1994). Thereafter, an eighty-one (81) item initial survey questionnaire was developed and by complete enumeration, it was administered to two hundred (200) Senior High School teacher-respondents. Using Exploratory Factor Analysis, seventy (70) item survey questionnaire on principals' innovative leadership practices was developed and generated three (3) components which included leadership, individual attributes, and psychological climate for innovation. The developed survey questionnaire was subjected to internal consistency reliability test in which the computed Cronbach's Alpha value was 0.989 which means that the over-all reliability of it was excellent. Based on the findings, it was recommended that school heads need

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tos focus on setting goals and plans, equip themselves with the basic skills, plan and develop effective strategies, coordinate, communicate and empower stakeholders, analyze the educational pattern and meet, cope up and sustain the needs of the school in all aspects.

*Keywords: Senior high school program; innovative leadership practices of principals; empower stakeholders; educational pattern; Philippines.*

## 1. INTRODUCTION

The current situation of the country somehow and partly depends upon the learning of the people living in, through education, according to Dr. Isagani Cruz (2010). It is believed that through K-12 Basic Education Curriculum implementation, learners and professionals in certain place as product of, could become competent, competitive and in compliance with what the world need based on the global educational standards.

In the global setting, Philippines is one of those countries with the shortest pre-university education system joining Djibouti and Angola with 13 or 14 year of educational cycle, as disclosed by the Senate of the Philippines [1], and was based from what has been stipulated under the Washington Accord and the Bologna Process.

The K to 12 Program in the Philippines as educational system started last May 2013 through the Republic Act 10533, also known as the Enhanced Basic Education Act when passed in the congress. As requisite under the new curriculum, at least one (1) year of kindergarten, six (6) years of elementary, and six (6) years in secondary education with four (4) years of junior high school and two (2) years of senior high school education will indeed be the years needed to accomplish pre-university schooling [2].

The education sector's current condition feels it impractical to push through with the new program. Dela Cerna (2016) discloses that majority of the schools in the Philippines still lack teachers, classrooms, chairs and reading materials, but the government continues to implement the new curriculum. At present, with Junior High School Program alone, books and learning materials are not yet even completed; much more challenges with the Senior High School Program offering when those resources still need to be created and distributed.

In school level, some administrators, teachers and community stakeholders are also reluctant

with the new program. For most people who are affected are the parents who insisted to retain the 4 years of secondary education, as they highlighted the burden brought by the Senior High School Program implementation. This could have a tremendous effect on the flow of implementation of the transformative educational curriculum.

Conversely, the critical role of leadership in reaching the vision and mission of an organization, and to battle obstacles during rough encounters has been placed into the pedestal by virtue of research in management [3] (Samad & Abdullah, 2012) [4].

Based on studies, the reasons to affect activity facilitation that builds creativity on leaders are influenced by their leadership styles, however, as to which their form and perception on leadership appropriate and suited in what stage is beneficial is still unanswered.

Along this perspective, the researcher explored the innovative leadership practices of principals in the implementation of Senior High School Program in the Division of Davao del Sur.

### 1.1 Purpose of the Study

This two-phase sequential mixed methods study aimed to explore the innovative leadership practices of principals in the implementation of Senior High School Program. The first phase was the qualitative exploration of innovative leadership practices of principals in the implementation of Senior High School Program, by collecting qualitative data through interviews with ten (10) secondary school heads as Key Informants in the Division of Davao del Sur, and thereby developed an initial survey questionnaire which was administered with two hundred (200) Senior High School teacher-respondents and subjected for Exploratory Factor Analysis. Outcome for quantitative phase was the reliably tested developed survey instrument for innovative leadership practices of principals in the implementation of Senior High School Program. The reason for collecting qualitative

data initially was that variables in this study were not known in which there was little guiding theory.

This study specifically answered the following research questions:

1. What are the innovative leadership practices of principals in the implementation of Senior High School Program?
2. What research instrument could be developed in describing innovative leadership practices of principal in the implementation of Senior High School Program?

## **2. METHODOLOGY**

### **2.1 Theoretical Framework**

The study is anchored on the theory, Determining Individual Innovative Behavior: A Hypothetical Model by Scot and Bruce (1994) which states that individual innovative behavior is viewed as the outcome of three interacting systems - individual attributes, leadership and climate for innovation. In this model leadership style (leader-member exchange and leader role expectation) and individual attributes (demographic variables and problem-solving style [systematic problem - solving style and intuitive problem-solving style]) affect individual innovative behavior directly and indirectly through the individual's perception of a climate for innovation (support for innovation and resource supply).

### **2.2 Research Design**

This study made use of sequential exploratory mixed method design which consisted of two distinct phases: qualitative tailed by quantitative. According to Creswell (2003), sequential exploratory mixed method is characterized by an initial phase of qualitative data collection and analysis followed by a phase of quantitative data collection and analysis. The purpose is to explore a phenomenon. This strategy might also be useful when developing and testing a new instrument.

### **2.3 Locale of the Study**

This study was conducted in the Division of Davao del Sur, specifically among public

secondary schools are who currently implementing senior high school program. Formerly, the Division of Davao del Sur comprised of twenty-two (22) elementary districts and forty-six (46) public secondary schools.

### **2.4 Sampling Procedures**

#### **2.4.1 Qualitative phase**

Purposeful sampling was used. According to Patton (2002), it is a technique widely used in qualitative research for the identification and selection of information-rich cases for the most effective use of limited resources. Creswell & Plano Clark (2011) emphasize that it involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest. For this reason, purposive sampling was used to determine the Key Informant Interview samples consisting of ten (10) secondary school head-informants from the identified and selected public secondary schools which offer Senior High School Program since School Year 2016 – 2017 up to present. The filter being used in the selection of the key informants in the selected school: preferably, the school head of the identified public secondary schools who implement Senior High School Program.

#### **2.4.2 Quantitative phase**

A complete enumeration was used in this study to come up with two hundred (200) senior high school teacher-respondents from the different public secondary schools for School Year 2018 – 2019, in the Division of Davao del Sur. Moreover, it is a data collection strategy where all members of the whole population are measured.

### **2.5 Research Instruments**

#### **2.5.1 Qualitative phase**

An interview guide was used on this phase with a set of three (3) open-ended questions with probing questions in it; which intended to explore the innovative leadership practices of principals in the implementation of Senior High School Program. Guide questions were validated by three (3) experts who were all equally competent in their respective field of work, knowledgeable on research, well-specialized in teaching language, and have backgrounds in professional

and educational leadership. After which, it was tried out to three (3) school heads.

### **2.5.2 Quantitative phase**

Initial survey questionnaire. It is composed of eighty-one (81) items on Innovative Leadership Practices of Principals in the Implementation of Senior High School Program which was administered to two hundred (200) Senior High School teacher-respondents for Exploratory Factor Analysis. After which, survey questionnaire was redounded into seventy (70) items. The 70 – item developed survey questionnaire was piloted to other twenty (20) Senior High School teacher-respondents for internal consistency reliability test where Cronbach's alpha was computed and interpreted with the aid of Statistical Software. Finally, the survey questionnaire on Innovative Leadership Practices of Principals in the Implementation of Senior High School Program was developed with three (3) components and seventy (70) items in it.

## **2.6 Data Collection Procedures**

The following considerations were observed.

### **2.6.1 Qualitative phase**

Data collection in the qualitative phase used the following procedures:

Key Informant Interview was conducted with ten (10) secondary school heads in the Division of Davao del Sur. Responses from the key informants were recorded using audio-tape recorder and handwritten notes, Recorded interviews were carefully transcribed. Transcribed interviews were then sent back to the respective key informants for its affirmation, as to the correctness and completeness of the information.

### **2.6.2 Quantitative phase**

Data collection in the quantitative phase used the following procedures:

To assume reliability of responses, survey was conducted to the different chosen secondary schools. The Senior High School teacher-respondents were assured of the confidentiality of their responses. All accomplished initial survey questionnaires were immediately retrieved right after the test administration. The data were then encoded and tabulated for statistical analysis.

## **2.7 Data Analysis Procedures**

### **2.7.1 Qualitative phase**

The exploratory design is useful when the researcher wants to generalize, assess or test qualitative exploratory results to generalize to a sample and a population.

Adopting Creswell Analysis transcriptions of significant statements was done and was read several times. Significant themes were then assigned to themes from cluster to emerging themes. After which, initial survey questionnaire on Innovative Leadership Practices of Principals in the Implementation of Senior High School Program was developed.

### **2.7.2 Quantitative phase**

In this phase, Exploratory Factor Analysis was used to validate the grouping of the identified temporary emerging and clustered themes in the initial survey questionnaire. Thereafter, survey instrument on Innovative Leadership Practices of Principals in the implementation of Senior High School Program was developed.

Developed survey questionnaire on Innovative Leadership Practices of Principals in the implementation of Senior High School Program was subjected to internal consistency reliability test where Cronbach's Alpha was computed and interpreted with the aid of Statistical Software.

## **3. RESULTS**

### **3.1 Innovative Leadership Practices of Principals in the Implementation of Senior High School Program**

Innovative leadership practices of principals in the implementation of Senior High School Program in the Division of Davao del Sur are described in the four emerging themes namely: leadership, individual attributes, psychological climate for innovation and influence to the stakeholders, anchored in the theory of Determining Individual Innovative Behavior: A Hypothetical Model by Scot and Bruce (1994).

The four emerging themes had clustered themes in each. In the first emerging theme, two clustered themes were identified, namely: leader-member exchange and leader role expectation. In the second theme, three (3) clustered themes were determined, namely: demographic

variables, systematic problem-solving style and intuitive problem-solving style. Another two (2) were determined under the third emerging theme, namely: support for innovation and resource supply. On the other hand, three (3) clustered themes under the fourth emerging theme namely: presenting and communicating information, networking and marketing, and persuading stakeholders.

### **Theme 1: Leadership**

Leadership is a process wherein empowerment within oneself is manifested in a certain group or in an organization which plans, leads, organizes, creates and influences.

#### **Leader-member exchange**

Leader-Member Exchange is a relationship between a supervisor and a subordinate related to innovativeness wherein, supervisors and subordinates engage in a role development process during which understandings are arrived at, regarding the extent of decision-making and influence.

The findings revealed that in the implementation of Senior High School Program, school heads coordinate with their teachers, empower their teachers and give some credits of the teachers' extra-work.

Moreover, as to more improvement of the teaching styles and performance of the teachers in the implementation of Senior High School Program, the result disclosed that school heads observe classes, conduct mentoring session and discuss with the teachers the importance of research on creating instructional materials.

School heads coordinate with and empower the teachers in the implementation of Senior High School Program. They give credits to the work of the teachers. They monitor and observe classes with the teachers. This shows of supervisors and subordinates engage in a role development process within the organization.

#### **Leader role expectation**

Leader Role Expectation means that the modification of an individual's behavior based on the behavior received from another person. As the findings revealed that in the implementation of Senior High School Program, school heads discussed with the teachers and staff the

challenges being faced with, and how to possibly address with.

School heads reacted and responded in the implementation of Senior High School Program also based on its situation and the kind of response and behavior of the people around. They tend to modify its behaviors depending on the situation getting in.

### **Theme 2: Individual attributes**

Individual attributes are associated with innovative practices which includes a desire for autonomy and social independence, a high tolerance of ambiguity during problem-solving, and a propensity for risk-taking. In this study, determined three (3) clustered themes namely: demographic variables, systematic problem-solving style and intuitive problem-solving style.

#### **Demographic variables**

Demographic variables (gender, age, career stage, academic qualification, experiences, and situation) are factors that may influence climate perceptions and innovative behavior or both. The findings revealed that in order to achieve the targets in the implementation of Senior High School Program, school heads need to be knowledgeable and be guided enough with the DepEd mandates to fulfill with.

On the other hand, as school heads embrace the offering of the said new program, they also need the help and support of the stakeholders.

Climate perceptions and innovative behavior or both are influenced by the demographic variables. School heads and the way they set and achieve their targets in the implementation of Senior High School Program are directly and indirectly affected by their desires and drives wherein some factors played a role in it. School heads as they are in the organization need help and support from the stakeholders on its program implementation process.

#### **Systematic problem-solving style**

Systematic Problem-Solving Style is based on habit or following set routines and adhering to rules and use of rationality and logic. The kind of problem-solver will generate conventional solutions to problems. This study disclosed that in the implementation of Senior High School Program, school heads need to be very

systematic in dealing with situation. School heads support its implementation by allocating budget the teachers' and students' travel for trainings, seminars and competitions.

With the new program implementation, school head promotes technical aspect innovation as to the office work services

On its counterpart, the result also elucidated that in order to implement Senior High School Program, school heads need to systematically accept and embrace it with utmost optimism within.

With the implementation of Senior High School Program, school heads need to follow set routines and adhering to rules and use of rationality and logic when it comes to decision-making. They need to be very systematic in dealing with situation, budget allocation with its operation, and to deal with technicalities, in form of support, as to accept and embrace the new program.

#### **Intuitive problem-solving style**

Intuitive Problem-Solving Style is characterized by overlapping separate domains of thought simultaneously, a lack of attention to existing rules and boundaries and an emphasis on imagery and intuition.

The result manifested that school heads tend to cope up with DepEd standards in the implementation of Senior High School Program. School heads set goals and timelines pro-actively to ensure stakeholders' understanding on the purpose of the said new program and to be in the right track.

School heads sometimes as to the implementation of the new program tend to decide things based on what they feel and think as the good for the organization, and the thought solution they deem that meets the possible considerations and practicalities in the respective field.

#### **Theme 3: Psychological climate for innovation**

Psychological Climate for Innovation is conceptualized as a determinant of individual behavior, and there being empirical support for climate's effect on innovative behavior. This emerging theme had branched out into two

clustered themes namely: support for innovation and resource supply.

#### **Support for innovation**

Support for innovation dimension is about the individuals' perceptions about the degree of their organizations' being open, supportive for new ideas and open to the divergent beliefs and opinions of organizational members. The result explained that for smoother implementation of Senior High School Program, school heads need to ask support from one another. They even link and benchmark to other institutions to witness and adapt their good practices in the implementation of the said new program.

Undeniably, school heads really need support of stakeholders as to the implementation of the Senior High School Program. With that, they need to be open and supportive with new ideas and different opinions of the organizational members.

#### **Resource supply**

Resource Supply includes among others, the personnel, financial resources and time which are provided by the organization for the innovation process. The findings further revealed that in the implementation of Senior High School Program, school heads ensured that the needs of the students, teachers and clientele in all aspects are being met.

Moreover, the result disclosed that in case of lack of resources needed in the implementation of the program, the school heads find ways to properly address it with.

Along its new program implementation, school heads need to consider the school resources. In case of inadequacy of resources needed for the implementation process, they tend to find ways to cope it up with; for the sake of the learners, teachers and clientele, in general.

#### **Theme 4: Influence to the stakeholders**

Influencing stakeholders is considered as vehicle for resource and advocacy campaign of Senior High School Program implementation which promotes healthy growth of an organization. This influence to the stakeholders has three (3) clustered themes namely: presenting and communicating information, networking and marketing, and persuading stakeholders.

### **Presenting and communicating information**

Presenting and communicating are the keys to have an effective exchange of information. As the findings revealed that in the implementation of Senior High School Program, school heads communicated their school vision to the teachers and staff, and discussed with them the challenges being faced with and how to possibly address with.

On the other hand, the result also manifested that school heads conducted symposium and orientation with stakeholders on the implementation of Senior High School Program.

School heads really presented and communicated to the stakeholders the vision and goals with regards to the Senior High School Program implementation. With that, exchange of information took place between the school heads and stakeholders with discussion among them on the challenges encountered, and the solutions to take in addressing it.

### **Relating and networking**

Relating and Networking generates new ideas and builds relationship among the stakeholders to create cross-functional teams. As the result disclosed, school heads link with the different stakeholders in order to ask support on the implementation of Senior High School Program. They also link with stakeholders in order to promote its campaign for the new program and to elicit its positive response of the community.

School heads, by just themselves alone could never possibly stand along the implementation of Senior High School Program. Indeed, they relate and network with different stakeholders about the program and its needs, and the possible outcome that it may offer with ahead; to create cross-functional teams.

### **Persuading stakeholders**

Persuading is an ability of a leader to communicate its vision in an organization wherein its drive is to have the people around to side with, in support of the organizational undertakings and activities for its good and welfare.

The findings revealed that in the implementation of Senior High School Program, school heads exerted its effort to really inform the stakeholders

about the new program, and have them convinced to extend its support for.

School heads communicated, convinced and led the different stakeholders in the organization and community, in general for the assured support from one and another with its implementation of the new program. They convinced all to participate and cooperate with towards success.

## **3.2 Survey Questionnaire Development on Principals Innovative Leadership Practices in the implementation of Senior High School Program**

### **3.2.1 Factorability of principal innovative leadership questionnaire**

As the factorability of Principals' Innovative Leadership Questionnaire was conducted, the Kaiser-Meyer-Olkin (KMO) measure was found to be 0.949, which is higher than the required 0.60 (Kaiser & Rice, 1974). This means that the data was adequate and was acceptable for the conduct of factor analysis. Also, the approximate chi-square value was 12509.467, with p-value of 0.000, which is lower than the required 0.05. This means that the responses for the scale were significant and deemed appropriate.

When the administered initial survey questionnaire was treated with Exploratory Factor Analysis (EFA), rotated component matrix was set at 22 iterations, with coefficients lower than the required +0.40 eliminated. Of the eighty-one (81) items responded, seventy (70) items were retained in the final scale since those items coefficients result met nor exceeded. +0.40 as set criteria.

### **3.2.2 Reliability test of developed survey questionnaire of principals' innovative leadership**

When the developed survey questionnaire on Principals' Innovative Leadership Practices was subjected to internal consistency and reliability test; as it was piloted to other twenty (20) Senior High School teacher-respondents, the overall reliability test result was 0.989 as computed Cronbach's Alpha which signifies that the said developed survey questionnaire and its three (3) components, namely: leadership, individual attributes and psychological climate for innovation, with seventy (70) items in it deemed as reliably excellent.

## 4. DISCUSSION

### 4.1 Innovative Leadership Practices of Principals in the Implementation of Senior High School Program

Innovative leadership practices of principals in the implementation of Senior High School Program in the Division of Davao del Sur are described in the three (3) components: leadership, individual attributes and psychological climate for innovation, Scott and Bruce [5].

#### Theme 1: Leadership

It is manifested that the power to lead and passion to empower team members in the organization is in the core of the school heads. They plan and organize activities in support to the newly implemented program as they link to the stakeholders and convince them to give their full support for it. This is supported by Zulch [6] as he says that as leaders, they must have an ability to take charge, direct, encourage, or stimulate others. They are supposed to have an attitude to convince others and to make them follow the goals or the participles defined by them.

#### Leader-Member Exchange

As manifested, school heads coordinate with and empower the teachers in the implementation of Senior High School Program. They give credits to the work of the teachers. Besides, they monitor and observe classes with the teachers. This shows how supervisors and subordinates engage in a role development process within the organization. As supported by the LMX theory, in the relationship between an employee and the leader is developed. Various qualities in the scale of poor interpersonal relationship to open and trusting relationship may be observed Lunenburg (2010).

#### Leader Role Expectation

As disclosed, school heads reacted and responded in the implementation of Senior High School Program also based on its situation and the kind of response and behavior of the people around. They modify its behaviors depending on the situation getting in. This point has been explained by Amabile [7]; Jung (2001); Mumford & Gustafson [8] which state, that among the factors that influence employees' creative behaviors and performance, research has shown

that leadership has been identified to be of great importance if not the most important factor. Either direct or indirect ways, the creativity of the followers can be affected by leaders as observed.

#### Theme 2: Individual Attributes

As disclosed, school heads need to equip themselves in all aspects. They upgrade and update themselves with necessary information that they could use in any decision-making, most especially with the implementation of Senior High School Program. As explained by Ryan and Deci (2000), self-determination-theory investigates human's inherent growth tendencies and innate psychological needs which are seen to form the basis for people's self-motivation and personality integration.

#### Demographic Variables

As revealed, climate perceptions and innovative behavior or both are influenced by the demographic variables. School heads and the way they set and achieve their targets in the implementation of Senior High School Program are directly and indirectly affected by their desires and drives wherein some factors played a role in it. School heads as they are, in an organization need help and support from the stakeholders on its program implementation process. In support to this, Valentin Konya (2015) in their studies states, that demographic and individual characteristics of employees have shown that they are related to organizational commitment. Together with the level of commitment, the age of individuals and the years spent in organization has been determined to have an existing links.

#### Systematic Problem-Solving Style

With the implementation of Senior High School Program, school heads need to follow set routines and adhering to rules and use of rationality and logic when it comes to decision-making. School heads need to be very systematic in dealing with the situation, budget allocation with its operation, and to deal with technicalities, in form of support, as to accept and embrace the new program. These findings were supported by Wallas (1926) as he stated, that the evolution of cognitive models of multistage processes of creative thinking and problem solving began with four linear stages: preparation, incubation, illumination, and verification.



### **Intuitive Problem-Solving Style**

As disclosed, school heads sometimes as to the implementation of the new program tend to decide things based on what they feel and think as the good for the organization, and the thought solution they deem that meets the possible considerations and practicalities in the respective field. This manifestation has been elucidated by Bargh & Chartrand (1999); Kahneman (2003); Stanovich & West (2000) that Intuitive Problem-Solving Style involves the automatic and relatively effort-less processing of information. In support of this, Dane & Pratt (2007) stated that cognitive operations (though not necessarily the products) of this system tend to be inaccessible to consciousness.

### **Theme 3: Psychological Climate for Innovation**

In the implementation of Senior High School Program, school heads really need support from stakeholders as they adapt with the change. They find ways to look and manage for the available resources to meet the needs and expectations of the learners, teachers and community stakeholders. To explain more on this, the climate of values, encouragement, and innovation building that is created is critical. This is for striving continuous innovation by creating a psychological climate, Scott and Bruce [5].

#### **Support for Innovation**

Undeniably, school heads really need support of stakeholders as to the implementation of the Senior High School Program. This has been expounded by Scott & Bruce [5] that, the organization members perceiving its degree is what makes innovation dimension support. This is, being transparent to diverse ideas and fresh thoughts even conflict of belief and opinions of organizational members.

#### **Resource Supply**

Along its new program implementation, school heads need to consider the school resources. In case of inadequacy of resources needed for the implementation process, they try to find ways to cope it up with; for the sake of the learners, teachers and clientele, in general. In consonance with, Scott & Bruce [5] clarifies that resource allocation dimension includes among others, the personnel, financial resources and time which are provided by the organization for the innovation process.

### **4.2 Survey Questionnaire Development on Principals' Innovative Leadership Practices in the Implementation of Senior High School Program**

Developing a measure such as the Innovative Leadership Questionnaire requires rigorous and systematic planning on the part of test developers to ensure that the innovative leadership questionnaire at hand served the epistemic ideal of science.

As the process gets into progress, instrument of index of phenomenological practices of principals' innovative leadership in the implementation of Senior High School Program was developed, as an intermediate step between the phase that built qualitative results and was used in the subsequent quantitative data collection. On the other hand, initial survey questionnaire was administered to certain number of respondents for Exploratory Factor Analysis, in which thereafter, survey questionnaire on principal's innovative leadership practices were developed, and subjected to internal consistency reliability test; leading to newly created and finalized survey questionnaire on innovative leadership practices of principals in the implementation of Senior High School Program. As explained by Hadi et al. (2016) and anchored on the study of Hair et al (2012), Exploratory Factor Analysis (EFA) reduces a large number of observed variables to a small number of "factors/components", reflecting that the clusters of variables are in common. In EFA, the correlation among a group of observed variables are identified and transforms into a small number of related factors.

### **4.3 Factorability of Principal Innovative Leadership Questionnaire**

Statistically, the initial survey questionnaire for principals' innovative leadership practices in the implementation of Senior High School Program was adequate and acceptable for Exploratory Factor Analysis, since the Kaiser-Meyer-Olkin (KMO) measure was 0.949, which is higher than the required 0.60.

As explained by Pallant (2013) states, to determine whether a particular set of data is appropriate for EFA; number of samples (sample size) and the strength of the relationship between indicators (variables). KMO is used to test whether the sampling is adequate Kaiser (1970, 1974), while Bartlett's test of sphericity is used

for the assessment of how strong the variables are in terms of significant relation (Bartlett, 1954). It is important to know that at the internal level, measurement of the indicators is required.

As emphasized by Field (2000), the adequacy of the sample is measured by KMO in SPSS. The value larger than 0.5 from the Kaiser Meyer Olkin (KMO) means that there is an adequacy of sampling therefore it is sufficient. On the other hand, Pallant (2013) presented that the value of KMO is 0.6 and above. However, Kaiser (1974) recommends a bare minimum of 0.5 and the value between 0.5 and 0.7 are mediocre, value between 0.7 and 0.8 are good, value between 0.8 and 0.9 are great and value between 0.9 and above are superb, as added by Hutcheson & Sofroniou (199). Moreover, as mentioned by Pallant (2013); Field (2000), the strength of the relationship in SPSS can be measured by a Bartlett Test of Sphericity.

#### **4.4 Reliability Test of Developed Survey Questionnaire of Principals' Innovative Leadership**

The overall reliability test result of the developed survey questionnaire on innovative leadership practices of principals in the implementation of Senior High School Program was 0.989 as computed Cronbach's Alpha which signifies that the said developed survey questionnaire and its three (3) components, namely: leadership, individual attributes and psychological climate for innovation, with seventy (70) items in it deemed as reliably excellent.

As mentioned by Tavakol and Dennick (2011), the higher internal consistency would mean higher reliability of the research instrument.

### **5. CONCLUSION**

#### **5.1 Conclusion for Knowledge**

This study is an exploration of innovative leadership of principals in the implementation of Senior High School Program that has contributed to the full understanding on innovation and its practices that are associated to leadership, individual attributes and psychological climate for innovation.

With its leadership perspective, school heads lead and empower team members in the organization. They plan and organize activities in support to the newly implemented program. They

link and convince stakeholders for their support. As to individual attributes point of view, school heads upgrade and update themselves with necessary skills on decision-making. Aside from, they engage in professional, evidence-based discourse and clarify goals, and align the activities. Indeed, School heads adapt with the change. In view of the psychological climate for innovation, school heads find and manage the available resources. They meet the needs and expectations of the learners, teachers and community stakeholders. Therefore, innovative leadership of principals tremendously play its significant role in the implementation of Senior High School Program towards success.

#### **5.2 Conclusion for Practice**

Innovative leadership has been manifested in the implementation of Senior High School Program. DepEd orders, policies and programs are decentralized through School-Based Management to fully implement the Senior High School Program wherein, its accountability, responsibility and empowerment are encumbered upon the school heads. These DepEd initiatives have realized that innovative leadership resulted to every school head on its own level; to initiate on planning, leading organizing and creating its moves towards smoother and successful implementation of the new program. Individually, school heads are likewise given professional development opportunities through seminars, trainings, and leadership short term courses that really help improve the Senior High School Program implementation. Resource Supplies in any form are likewise provided by the school heads to promote school climate that is accessible and supportive for innovation that paves its way to quality and meaningful learning experiences, and that contributes to community development. Indeed, innovative leadership has significant impact on the program successful implementation.

### **6. RECOMMENDATION**

#### **6.1 Recommendation for Knowledge**

This study on the exploration of innovative leadership of principals in the implementation of Senior High School Program that has contributed to the body of knowledge as innovativeness in workplace; interacted by leadership, individual attributes and psychological climate for innovation. Specifically, further research pursuing

this topic in context of innovative leadership and education, and its impact to development may benefit from considering the following:

- The Determining Individual Innovative Behavior: A Hypothetical Model by Scot and Bruce (1994), and its methodologies used may still be relevant in further research undertakings and scrutiny on educational leadership as associated to innovation.
- With the leadership theory and its manifested related practices on this study, school heads must be given intensive and periodic trainings and seminars on planning, leading, organizing and creating its moves and actions when it comes to Senior High School Program implementation.
- Considering the result of the study and its understanding on individual attributes of school heads, thus, they need to equip and capacitate themselves professionally with necessary skills in making any decision with autonomy that promotes learning environment that is supportive for innovation among organizational team members and community stakeholders.
- Understanding on psychological climate for innovation based on the study recommends that school heads need to have a strong school-community partnership for generating and sustainable resource supplies in any form that would cater the needs of everyone in the organization, and to meet the stakeholders' expectations; as the new program implemented.

## 6.2 Recommendations for Practice

- Department of Education Officials have to promote innovative leadership and its related practices among school heads as they discharge their duties and functions in leading the organization, in general.
- DepEd Officials have to promote school heads professional development through continuing studies with a short term course, seminars and trainings to equip themselves with necessary skills for continued practice of innovative leadership; as they indulge in decision-making with bestowed sense of autonomy within.
- School heads need to establish and maintain strong school-community

partnership as to adapt with the change and to create learning environment for the learners that is supportive for innovation with assured and sustainable resource supply for the new program implementation process.

## CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the author(s).

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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