

Reflective Thinking Skills of Teachers and Students' Motivational Preferences: The Mediating Role of Teachers' Creativity on Their Relationship

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Abstract: Learners find ways to succeed along with all of their teachers in educational journey. It is a dream that good teaching would address the learners' challenges to acquire ideas and skills needed to deal with the rapid demands of expanding life in the twenty first century. This study aimed in contributing to the literature regarding a potential indirect mediating variable for the relationship between the reflective thinking skills of teachers and students' motivational preferences. Teachers' creativity was investigated as a potential mediating construct to explain the way in which reflective thinking skills of teachers affect the students' motivational preferences. The respondents of this study were four hundred Public Secondary Schools Grade Nine Students chosen from the ten school divisions of Davao Region, Philippines using the Slovin's formula. Three sets of questionnaires using five point rating scale were prepared. The data gathered were tabulated and interpreted using descriptive-correlational method with mean, Pearson r and linear regression. There were three steps to be met for the third variable to be acting as a mediator thus; med graph was utilized involving the Sobel test. Subsequently, significant differences and mediating effect among variables in this study were evident.

Keywords: Creativity, Davao Region, mediator, motivation, preferences, reflective thinking, Skills.

1. INTRODUCTION

“Educators are key players in the formation of students' personal identities by stimulating their development into active members of society (Willemsse et al.,2005)”. Teachers are expected to translate competencies to the learners attuned to the educative goals of the twenty first century. Students' enthusiasm shall be kept to sustain their learning interest, otherwise they maybe disengaged from school. If this happens, variety of actions can be done, thus making teaching learning process hampered (Wright, 2012).

In America, young and adults dropped ranging from ages 15 through 24 among grade 9 through grade 12. The foremost reasons of staying away from school are the following: low level of students' motivational preferences, absenteeism and deviant behavior (US Census Bureau, October 2012).

In the Philippines, the Department of Education (DepED) implemented the K-12 program parallel to the educational ladder in South East Asian Region under the United Nations Educational Scientific and Cultural Organization (UNESCO, 2011). This is perceived as the answer to educational challenges making the curriculum attractive and child-centered focused (Republic Act 20533). To ensure that education is fully achieved, reflective thinking skills of teachers shall be developed and mastered to ignite students' motivational preferences and assumed to be expert as soon as they are in the field. With this issue, “Teacher Learning Institute” (TEI) of higher education joined efforts with DepEd to incorporate

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skills and competencies in the twenty first century that includes critical thinking in the curriculum for teachers' preparedness in the teaching profession (Choy and Oo, 2012).

Students respond to stimuli maybe slow and disinterested to learn because teachers' capacity is insufficient to apply thinking skills in their daily routine of teaching. These are reflective thinking skills that can be reverberated to the clientele (Black, 2005; Choy and Oo, 2012; Vashe, 2001). Reflective thinking can be equated to higher thinking level of Bloom's Taxonomy (Bloom, 1976) of which teachers need to align into their lessons such as: analysis, synthesis and evaluation. Are teachers' thinking skills needed to capture the motivational preferences of the students? Therefore, this paper attempts to determine whether teacher thinking skills are material to student - learning motivational preferences.

Students' motivational preferences are central in the teaching-learning endeavour. They characterize the recipients' persistence, attention, feelings of surprise, enjoyment and excitement of the information and how it is processed in a given situation (Ainley, 1998; Alexander, 1996; Gardner, 1992). To promote students' motivational preferences continuously, as every educator aims and to eradicate the reason of students' dropping out from school which some parents claim, the researcher is prompted to use another variable, "the teachers' creativity". Its role is perceived to mediate the relationship of the reflective' thinking skills of teachers and that of students' motivational preferences and to enrich teaching-learning process towards the realization of developing the children well-roundedly.

Creativity arises from the conglomeration of knowledge, creative thinking and motivation of every individual (Adams, 2005 and Snow, 2013). Teachers can apply this skill to escalate students' thinking capabilities and to sustain interest in learning. They have major impact in moulding students' values and multiple intelligences which shall be translated into real life situations meaningfully (Gardner, 1998; Willems, et al., 2005).

In Davao Region, Counts' (1925) observation on DepEd issues still resonate today. His assessment settled on students' motivational preferences emanated from teacher-related factor (Bautista, Bernardo and Ocampo (2008). It is perceived that mentors not equipped with reflective thinking skills portrayed low level of instructions. In view of this concept, the researcher would like to look for another variable bearing parallel to students' motivational preferences coming from legitimate claims of different related literature wherein reflective thinking skills of teachers surfaced. On the other hand, the researcher would still aspire to examine further the relationship of these two variables which can be mediated by another variable. Putting them together, the researcher would like to test if teachers' creativity has a mediating effect on the relationship between the two variables.

2. RESEARCH OBJECTIVES

Statement of the Problem:

This study aims to determine the mediating role of teachers' creativity on the relationship between the reflective thinking skills of teachers and students' motivational preferences in public schools grade nine students of Davao Region. Specifically, it seeks to answer the following objectives:

1. To determine the level of reflective thinking skills of teachers in terms of:
 - 1.1 Ability to self-assess
 - 1.2 Awareness of how one learns
 - 1.3 Developing life-long learning skills
 - 1.4 Influence of self-belief about self and self-efficacy?
2. To determine the level of students' motivational preferences in terms of:
 - 2.1 Instrumental motivation
 - 2.2 Interest in reading
 - 2.3 Interest in learning areas

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3. To determine the level of the teacher s' creativity in terms of:

3.1 Independence

3.2 Integration

3.3 Motivation

3.4 Judgment

3.5 Flexibility

3.6 Evaluation

3.7 Question

3.8 Opportunities

3.9 Frustrations

4. To determine the significant relationship between:

4.1 Reflective thinking skills of teachers and students' motivational preferences.

4.2 Reflective thinking skills of teachers and teachers' creativity.

4.3 Teachers' creativity and students' motivational preferences.

5. To determine if teachers' creativity has a significant mediating effect on the relationship between the reflective thinking skills of teachers and the students' motivational preferences.

Hypotheses:

The null hypotheses of the study will be tested at 0.05 level of significance.

1. There is no significant relationship between the reflective thinking skills of teachers and the students' motivational preferences; between the reflective thinking skills of teachers and teachers' creativity and between teachers' creativity and students' motivational preferences.

2. Teachers' creativity has no significant mediating effect on the relationship between the reflective thinking skills of teachers and the students' motivational preferences.

Methodology:

This chapter presents the research design, locale, respondents, research instruments, data gathering procedure, and statistical treatment of data.

Research Design:

This study applied the descriptive-correlational survey method. Correlation is defined as the tendency for the corresponding observations in two or more series to vary together from the averages of their respective series (Adanza, 1995). It indicates the tendency of two related variables to vary together. The descriptive method is used in describing variables in order to significantly describe data with numerical indices. It is essentially a technique of quantitative description of the general characteristics of the group (Sanchez, 1986).

This study is descriptive since it determined if teachers' creativity has a mediating effect on the relationship between the reflective thinking skills of teachers and the students' motivational preferences among public secondary grade nine students of Davao Region.

Research Locale:

Davao Region or Southern Mindanao was the venue of this study. As one of the regions in the Philippine Archipelago, it is situated in Southeastern portion named Region XI. It is composed of four provinces and six cities: Davao del Norte, Davao del Sur, Davao Oriental, Compostela Valley, Davao City, Tagum City, Panabo City, Island Garden City of Samal,

Mati City and Digos City. Through the years, the region prospers making Davao City as the center of educational seminars, activities and competitions as well as other public and private national agencies for their fora and conventions.



Figure 1. Map of the Philippines showing the Davao Region



Figure 2. Map of Davao Region

Population and Sample:

The areas covered in this research were the ten school divisions of Davao Region. The summary distribution of respondents were on the following divisions. Compostella Valley, 64 students (16.63%), Davao del Norte, 40 students (10%). Davao Oriental, 20 students (5%), Mati City, 32 students (8%), Digos City 16 students (4%), Panabo City 16 students, (4%), Davao City, 124 students (31%), Tagum City, 24 students (6%) and Island Garden City of Samal (IGACOS), 12 students (3%).

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There were four hundred students ((400) out of sixty two thousand four hundred five (62,405) secondary public school grade nine students as respondents in the whole region.

Using the Slovin's formula, the researcher used a maximum of 400 students only as respondents.

Since our grade 9 students of School Year 2014-2015 were the first group to adhere the Senior High School by School Year 2016-2017, the researcher was interested on their views regarding their teachers' reflective thinking capabilities and characteristics and their own motivational preferences.

Distribution of Respondents:
Grade 9 Enrolment of Region XI

| Division: | Respondents | Percent | Total Number: |
|-----------------------------|--------------------|----------------|----------------------|
| Compostella Valley | 64 | 16 | 10,143 |
| Davao City | 124 | 31 | 19,729 |
| Davao del Norte | 40 | 10 | 5,900 |
| Davao del Sur | 52 | 13 | 8,031 |
| Davao Oriental | 20 | 5 | 2,812 |
| Digos City | 16 | 4 | 2,652 |
| Island Garden City of Samal | 12 | 3 | 1,667 |
| Mati City | 32 | 8 | 5,242 |
| Panabo City | 16 | 4 | 2,546 |
| Tagum City | 24 | 6 | 3,683 |
| TOTAL | 400 | 100 | 62,405 |

Research Instrument:

There were three sets of survey instruments used in the study. The first set was the questionnaire for reflective thinking skills of teachers adopted from Choy and Oo (2012) to determine the level of their thinking skills. The second set was taken from Hondzel (2013) for the level of their creativity. The last set was the questionnaire for students' motivational preferences adopted from Artelt et. al (2000).

In evaluating the reflective thinking skills of teachers, students' motivational preferences, and teachers' creativity, a 5-point Likert scale was used as follows:

| Range of Scores | Description | Interpretation |
|------------------------|--------------------|-----------------------|
| 4.20 – 5.00 | Very High (VH) | Very Extensive |
| 3.40 – 4.19 | High (H) | Extensive |
| 2.60 – 3.39 | Moderate (M) | Fairly Extensive |
| 1.80 – 2.59 | Low (L) | Less Extensive |
| 1.00 – 1.79 | Very Low (VL) | Not Extensi |

Data Collection:

In gathering the necessary data and information, the researcher observed the following procedures:

The permission to conduct the study was first done. The researcher wrote a letter to the adviser and presented it to the dean of graduate school for endorsement to the Regional Director's approval. The approved letter was sent back to the researcher with a notation to the Schools Division Superintendents. The researcher prepared another letter to the ten Schools Division Superintendents with the Director's letter of approval on the conduct of the study. Administration of the

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questionnaire followed with the approved letters presented to the school principals during the n of the questionnaires in Davao Region.

The researcher filed a leave of absence to conduct the survey personally on the “Reflective Thinking Skills of Teachers and Students’ Motivational Preferences: The Mediating Role of Teachers’ Creativity” on their Relationship to ensure that the respondents had fully understood each item and to generate honest and accurate answers. Some Superintendents asked for additional requirements to the researcher for easy and early distribution of questionnaires. Retrieval of questionnaires started right after the respondents were done answering all the items. The survey questionnaires were immediately accounted for 100 percent retrieval.

After the retrieval of questionnaires, the researcher collated, tabulated, analyzed, classified accordingly and treat accurately all the necessary data with the use of appropriate statistical tools

Statistical Tools:

The data were statistically interpreted using the appropriate statistical methods:

Mean. This was used to determine the level of teachers’ creativity, reflective thinking skills of teachers and students’ motivational preferences in sub-problems 3, 4, and 5.

Pearson Product Moment Correlation Coefficient. Pearson Product Moment Correlation Coefficient was used to determine the relationship between teachers’ creativity and their reflective thinking skills, teachers’ creativity and students’ motivational preferences and between reflective thinking skills of teachers’ and students’ motivational preferences.

Multiple Regression Analysis. This was used to predict the extent of mediating effect of teachers’ creativity on the relationship between reflective thinking skills of teachers and students’ motivational preferences.

Medgraph using Sobel z-test. This was used to prove the mediation and to strengthen the obtained result.

Conclusion of the Research:

Level of Reflective Thinking Skills of Teachers:

The level of reflective thinking skills of teachers involved in this study was very high (4.27). This means that teachers, as perceived by the respondents are often times practicing their reflective thinking skills. There were four indicators to describe this variable taken from Choy and Oo (2012). The level was very high among the three indicators and leaving only one indicator that rated high. Reflective thinking skills of teachers in terms of self assessment on their abilities scored very high (4.28). This means that teacher’s bending thoughts were analyzed by identifying their strengths and weaknesses and contemplating on opportunities as well as threats (Choy & Oo, 2012). Reflective teachers know how to control their capacities to learn and teach as well. To assess what mentors have known and what they need to know are essential in the preparation for their input - sharing of knowledge (Choy & Oo, 2012, Seizer, 2008).

Teachers’ journey to know how one learns rated very high (4.36) which was associated to prior knowledge about the learners background contributory to provide a good learning environment to the clientele (Adams, 2006; Moses (1990) This means that teachers took necessary steps to identify the specific strategies to suit on the needs of the learners. Constructive action was preferred, paving the way for students’ motivation to participate in the classroom. Powell and Powell (2011) cited that knowing learners, teachers include their emotional intelligence as one of the factors to consider in teaching. Affectively, teachers forge flexibility of thoughts, greater empathy, patience and responsiveness among students.

The level of teachers’ portrayal in developing life-long learning skills marked very high (4.27). It indicates that teachers have pro-active disposition in giving learners’ skills for them to exist and earn a living today and onwards. Life-long learning is the language of every one and reflective thinkers shall be open to changes. President Aquino (2013) stressed in the K to 12 curriculum, that students should be prepared to learn the twenty.

The level of reflective thinking skills in terms of the influence of self-belief and self-efficacy got a high rating (4.18). This connotes that teacher’s beliefs about self and self-efficacy affect the learners confidence and trust on themselves and to other people that illicit their motivation to learn. Bandura (1994) reiterated that a person who believes in his/ her ability is

likely to succeed in his /her mission. Further, strong self-efficacy implies determination to master task, put interest on hand and form a stronger commitment to activities. Teachers are governed by their principles and they find effective in influencing people comparable to knowledge deliver to the learners, such as: organizing task, solving problem, assessing learners and how to handle classroom situations (Choy Oo, 2012; Pajares, 1992). First century skills for them to earn a living and capable to be employed after finishing senior high school.

The standard deviation (0.38) which was less than 1.0 typical for a 5-point likert scale, indicated consistency of responses among the respondents of this study. Similarly, reflective thinking skills of teachers develop metacognition awareness. Whatever opportunities they perceived are empathically transmitted to their learners. Evidence shows on the responses of the learners that cognitive skills they received are skills, they cherished from their teachers.

Level of Students' Motivational Preferences:

The level of students' motivational preferences gained very high (4.35). This means that students either intrinsically or extrinsically motivated, they succumbed to challenges of time. The rise of technology and industry prompted them to keep abreast with best practices and interesting views in order to be adopted in the community where they live. Artelt et., (2000) conceived three elements of students' motivational preferences namely: instrumental motivation, interest in learning and interest in mathematics or in all subject areas.

The level of students' motivational preferences in terms of students' instrumental motivation gained a very high rating (4.56). It forges insights to cultivate students' motivation in learning especially when valuable returns are at stake, hence mentors are responsible to capture them for sustainability. Krapp et.al, (1992) reiterated that making the task interesting to the learners, the teachers shall express a sense of greater commitment, pleasant feelings of the effort made and increased willingness to learn. These manifestations of mentors' dispositions are transmitted to make learners highly motivated and convincingly eager to acquire knowledge (Sansone and Morgan, 19992).

The level of motivational preferences in terms of learners' interest in reading reaped a high rating (4.14). It means that motivated individuals are attracted to new stimulus and spent time reading for anxiousness. Despite time consuming, students find ways to read when teachers illicit their interests through homework and goal oriented tasks (Arlington, 1977; Moser and Morrison 1998). Teachers consider the family background, peer and preferences of learners especially to the beginners and provide activities to intensify perceptions to read. Reading materials such as books, periodicals and newspapers must be attractive to escalate the interest of the learners to read (Artwell, 2007).

Students worked hard towards good life in the future and gave interest in all learning areas which obtained a very high mark (4.35) The level of students' motivational preferences in all subject areas including mathematics are primordial concern of parents and teachers which ended up to a high regard in this study. Mathematics as one of the disciplines in all subject areas need a special consideration for mentors. Teachers need to initiate strategies to ignite students thinking capabilities to ask questions think deeply and find answers in a specified time. This endeavor singles out motivation, as the inspiring vehicle behind this learning, that every teacher dreams to happen. Others are motivated from external rewards for good achievement such as praise, good job placement and commendations not only in education sector but also in the society where they live. Motivation may derive from the learners intrinsically and enjoyed naturally hence teachers must be there to guide them accordingly (Torrance, 1971). Most often basic needs motivate individuals to strive for existence, thus learning takes place within the learner's cognitive analysis. The standard deviation (0,48) which was less than 1.0 typical for a 5-point likert scale, indicated consistency of responses among respondents of this study.

The Level of Teachers' Creativity:

The level of teachers' creativity obtained a very high rating (4.34) as included in this study. To teach creatively, one must be creative which means that creativity has elements to perform meaningfully. Teachers' creativity was leveled in terms of the following indicators: Independence, integration, motivation, judgment, flexibility, evaluation question, opportunity and failures.

The level of teachers' creativity in terms of independence was very high (4.25). This means that teachers provided the learners tasks to work on their own, taught the basics, left them for perusal and left open ended questions for them to find

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answers. Students were on their way to share ideas, ask questions and make suggestions. Teachers still account and monitor students how far they are, in a given task (Grow, 2013).

The level of creativity in terms of integration was very high (4.49). Teachers gave students the opportunity to share their ideas into the groups' outputs with the belief to produce new ideas. In teaching skills and competencies, teachers emphasized the importance of mastering them (Adams, 2005; Sternberg 1997). The level of teachers' creativity in terms of motivation was very high (4.36). This shows that teachers are prime movers of learner's interest to learn. They inspired them to start doing things and once started, they completed the tasks immediately even without the teachers' presence (Dean, 2011). Moreover, teachers encouraged learners to master the basic knowledge and skills and to explore ideas presented thoroughly before a decision was done.

Students were taught to accept suggestions with questions in order to think deeply, thus judgment gained a very high level (4.44). This means that learners are motivated to observe and inquire situations and reserved ideas for other purposes and make judgment based on facts much more on career pathways knock on one's door (Brunner, 1996; Preston, 2013). On the other hand, the level of teachers' creativity in terms of flexibility scored very high (4.29) Teachers' encouraged learners to share ideas even if, they seemed not relevant to the topic discussed. They gave learners chances to participate in the activity and to check their own work before they did. By flexibility, one has the capacity to change standpoints as soon as additional information come without notice. Inevitable circumstances are unpredictable, so teachers must be flexible to shift paradigm as needed for the good of the learners (Costa and Kallick, 2000).

The level of creativity in terms of evaluation scored very high (4.23). Teachers encouraged learners to do things differently and make judgment on their work before they submit for corrections. Strong and weak points of learners were evaluated through their outputs as manifestation of evaluation. (Lambright, 1995). The level of teachers' creativity in terms of question was very high (4.32) This implies that teachers often encouraged students to ask questions. Creativity included listening to suggestions even if they were not practical and meaningful thus, teachers patiently listened to students' questions even if they sounded silly and boredom. Teachers must be creative to encourage students to ask questions timely and offer support that matches students' need in achieving academic and social undertakings (Conchar, 2013; Kaufman, 2014).

The level of teachers' creativity in terms of opportunity was very high (4.37). Teachers moulded learners through skills and competencies towards life-long learning. In return, teachers encouraged them to put what they learned into practice. They allowed students to deviate and go beyond what had been taught within the subjects (Conchar, 2013). Teaching pedagogies are initiated by mentors according to students need and inspire them to inquire on ideas as well as different situations and make solutions to problem. These strategies can possibly give a wide opportunity to develop them as critical thinkers (Paswan and Young, 2012).

The level of teachers' creativity in terms of failures was very high (4.35) This means that classrooms were open to every learners who may experience this phenomenon. They encouraged students to cope with failures and let them understand that it is a part of the learning process. In frustration, teachers encouraged students to help themselves stand bravely and find solutions to crucial situations met. (Bandura, 1992)

The standard deviation which was 0.42 lower than 1.0 typical for a 5-point likert scale, indicated consistency of responses among respondents of this study.

Significance of the Relationship Between Reflective thinking Skills of Teachers and Students' Motivational Preferences :

There is a significant relationship between reflective thinking skills of teachers and the students' motivational preferences using the Pearson r measure. This implies that reflective thinking skills of teachers are central to illicit the students motivational preferences. This had been done through participation and making use of their social consciousness in the society where they exist and find themselves exercising through critical thinking skills (Dewey, 1910)

Teachers' beliefs, values and self-efficacy influenced themselves to commit and educate learners globally by translating their cognitive expertise through high order questions, problem solving, organizing tasks and making decisions. (Choy and Oo, 2012; Mc Combs & Whisler, 1977; Pajares, 1992). Teachers' cognitive ability propels the child's interest to

interact between the acquisition of knowledge and the existence of prior experience towards the formation of new constructs. Similarly, teachers radiate motivation by modelling and emotionally mobilizing their characters and equipped with thinking capabilities in order to share their expertise to the students (Adams, 2006; Moses, 1990). Most importantly, learners endowed with natural talents in their own way must be cultivated according to their zone of proximal development (Vigotsky, 1978). Teachers are always considered that they are needed to coach them to become champions (Pierson, 2013; Rimes, 2014; Sternberg, 1997).

Significant Relationships between Reflective Thinking Skills of Teachers and Teachers' Creativity:

There is a significant relationship between the reflective thinking skills of teachers and teachers' creativity using the Pearson r . Teachers with reflective thinking skills have a higher degree of response that leads to a higher level of interest (Parasuman et. al., 1985). Teachers intelligence as a key to creativity generate ideas that are novel and of high quality leading to right direction on what to teach to the clientele. They must be observant not only within the parameters of the school but to the whole community where the school is. The culture of the school and the community are accounted for, to initiate the right direction in their class. They redefined problems and think of solutions appropriately geared towards meaningful application of new constructs (Sternberg, 1996).

As soon as knowledge is developed, teachers' creative ability follows that relate on how people approach problems and depending on personality and working styles (Adams, 2005). Reflective teachers are expert teachers who manifested creativity by applying strategies that suited to the need of the child. They are receptive to new ideas and willing to accept changes and challenges for the good of the clientele (Henderson, 1992).

Significant Relationship between Teachers Creativity and Students' Motivational Preferences:

A significant relationship exists between teachers' creativity and students' motivational preferences as measured using Pearson r . This means that teachers took a major influence in moulding the learners' values, cognitive aspects and mobility through empathy, rapport and instructional approaches (Willmse et al., 2005). Teachers with creative intelligence have quick standpoint, great imagination and easy to create strategies in situations that need a rescue. "Every child needs a champion" (Pierson, 2013). Students need teachers to get started in their journey to know and what to know. Once they are motivated to do, they tend to finish the task immediately (Dean, 2011; Seizer, 2008; Snow, 2013). When teachers are motivated, most likely students are also motivated as well as creative. The enthusiasm felt by learners often emanate from their mentors. This gives meanings and impact to themselves in terms of confidence and self-efficacy in the acquisition of knowledge.

Reflective Thinking Skills of Teachers and Students' Motivational Preferences: The Mediating Role of Teachers' Creativity.

The aim of this study was to contribute to the literature regarding potential indirect, mediating variable for the relationship between reflective thinking skills of teachers and students' motivational preferences. In particular, teachers' creativity was investigated as potential mediating construct to explain the manner in which reflective thinking skills of teachers affect students' motivational preferences. While full mediation was not found in this study, significant and important direct effects were shown that may be of help in the enhancement of the existing researches (Boody et. Al, 2008; Choy & Oo, 2012; Kujawa & Hushe, 1995; Powell & Powell, 2011) on reflective thinking skills of teachers and students' motivational preferences.

Specifically, the studies of these authors on the relationship between reflective thinking skills of teachers and students' motivational preferences find relevance with the theoretical framework of this study that of John Dewey (1933) who declared that teachers should have reflective thinking skills to ask questions that generate conflict and confusion, the expertise to help learners reach the answer and stimulate to recognize a 24 carat gold question. Dewey's reflective theory stressed the importance of content and process skills in the learning process. Content is the knowledge that teachers must be competent to teach and process skill is the thinking skill used as vehicle in the acquisition of knowledge transmitted to the learners efficiently. Specifically, the current study has found that teachers' creativity is a positive and significant mediator of reflective thinking skills of teachers and students' motivational preferences and met Baron and Kenny's (1986) mediation guidelines.

The mediation analysis involved the path between reflective thinking skills of teachers and teachers' creativity and the path between teachers' creativity and students' motivational preferences. The findings confirmed the significant relationship between reflective thinking skills of teachers and teachers' creativity, lending support to one of the framework accounts of this study that of Sternberg (2005) who maintained that creative thinkers are most likely good investors. "They buy low and sell high". Creative thinkers buy low in presenting their unique ideas to others and sell high by sharing those ideas and moving forward for more new constructs. Moreover, Sternberg resonated that people with high creative intelligence have great insight, imagination and easy to formulate new ideas. They are able to define and achieve their own ideas of success and skilled enough in adapting and modifying their environment according to the needs within the parameters of their culture. Similarly, reflective thinking skills of teachers are equated to higher order thinking skills of Bloom's Taxonomy as analysis, synthesis and evaluation (Bloom, 1976; Boody, 2008; Choy et al., 2012). Self-analysis of teachers' especially strengths and weaknesses enabled them to contemplate on threats as well as opportunities to enhance and provide more capabilities to teach effectively and efficiently through different strategies according to the needs of the learners (Adams, 2005; Bigge & Shermis, 1992; Boody, 2008; Choy & Oo, 2000; Saolomon & Perkins, 1998). Reflective teachers are also emotionally intelligent, veteran and transmitter of knowledge, who are flexible and equipped with varied techniques and methodologies to exercise as educational facilitators (Henderson, 1992; Kujawa & Huske, 1995; Powell & Powell, 2011).

Further, the significant relationship between teachers' creativity and students' motivational preferences in this study supports the Attention, Relevance, Confidence and Satisfaction (ARCS) Model of Keller (1979 and 1983) who pronounced, that in response to a desire to find more effective ways of understanding the major influences on students' motivational preferences, a systematic way of identifying and solving problems is addressed. This paves the way for learners to remain motivated and to seek for truth of which instructional designers should provide quality instruction and assume that learners have the responsibility to decide whether or not to avail of the opportunity to learn (Keller 1987). Likewise, ARCS Model is also a method of improving the motivational appeal of instructional materials which are equally important in teaching and learning situation. It contains basic concepts and variables that characterizes human motivation, sets of strategies needed to enhance motivational preferences and systematic designs called motivational designs for instruction Keller (1984).

The mediation results further demonstrate that the indirect effect of the mediator (teachers' creativity) was stronger than the direct links of variables as evidenced by the ratio index of 65 percent. This signifies that about 65 percent of the total effect of reflective thinking skills of teachers on students' motivational preferences goes through teachers' creativity and about 35 percent of the total effect is either direct or mediated by other variables not included in the study. Teachers' creativity partially mediated the relationship between reflective thinking skills of teachers and students' motivational preferences. This is further evidenced by the Sobel z-test showing that the indirect influence of reflective thinking skills of teachers on students' motivational preferences through teachers' creativity was considerably different from zero ($z=8.577$; $p<0.01$) indicating a partial type of mediation.

The result indicates that teachers' creativity can improve on students' motivational preferences. A number of authors (Cropley, 1992; Dean, 2011; Gates, 2013; Grow, 2013; Hondzel, 2013; Julho et al., 2012; Kaufman, 2014; Rimes, 2014; Snow, 2013; Sternberg & Lubart, 1995; Sternberg & Williams, 1996) expressed that highly inspired teachers make themselves motivated reverberated to learners, thus making them highly enthusiastic as well as creative. The motivation felt by students often emanated from teachers who encouraged creativity which provided opportunity, fostered self-directed learning and divergent thinking skills. Teachers are encouraged to model creativity and to give scaffolding for students' support until such time that they can stand by their own in terms of knowing what they know, what they would like to know and how to do about things around them (Mc Combs and Whisler, 1997; Parasuman et al., 1985; Paswan and Young, 2002; Rimes, 2014). Mentors motivate learners to make critical investigations and draw conclusions on what they have discerned in their studies in order to give impact and meaning to their learning. Once guided and started, learners tend to finish the task immediately (Brunner, 1996; Conchar, 2013; Dean, 2011; Mc Combs & Whisler, 1997). Teacher intercedes and sustains motivation and most likely, "every kid needs a champion" Pierson (2013). Concomitantly, Albert Einstein said "to raise new questions, new possibilities come, regard old problems from a new angle, requires creative imagination and makes real advances".

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Another implication is that reflective thinking skills of teachers function through teachers' creativity in influencing the students' motivational preferences in reading, to all subject areas and especially in preparation for career pathways (Arlington, 1977; Ewen, 2014; Moser and Morrison, 1998; Preston, 2013, Volet and Jarvela, 2001). Teachers' creativity reinforces the relationship of the reflective thinking skills of teachers and students' motivational preferences. Conversely, the partial mediation result of teachers' creativity points to the learners to cherish the reflective thinking skills of teachers considering their greater influence on their motivational preferences.

3. CONCLUSION

Based on the findings of the study, conclusion was derived. The findings explicitly confirm the theoretical assumption that teachers' creativity has the mediating effect on the relationship of the reflective thinking skills of teachers and students' motivational preferences. Meanwhile, the expected mediating effect of teachers' creativity to the reflective thinking skills of teachers and the students' motivational preferences is highly concurred by the grade nine public students of Davao Region. Evidently, the result reveals that the level of reflective thinking skills of teachers in Davao Region is very high. Similarly, the motivational preferences of grade nine students exhibit also a very high level so with their dispositions on teachers' creativity with a very high rating.

Furthermore, there is a significant relationship between reflective thinking skills of teachers and students' motivational preferences in secondary schools of Davao Region. The mediation results demonstrate that the indirect effect of the mediator (teachers' creativity) was stronger than the direct links of variables. This signifies that 65 percent of the total effect of the reflective thinking skills and students' motivational preferences goes through teachers' creativity and about 35 percent of the total effect is either direct or mediated by other variables not included in the study. Nevertheless, the partial mediation result of teachers' creativity points out to cherish the reflective thinking skills of teachers considering its greater influence on students' motivational preferences. Generally, it indicates that teachers' creativity has a significant mediating effect on the relationship between the reflective thinking skills of teachers and students' motivational preferences among grade nine public secondary schools of Davao Region. Teachers' creativity reinforces the reflective thinking skills of teachers and students' motivational preferences as vital components on the educational journey of the public grade nine students of Davao Region and soaring high towards excellence.

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