Motivational Attributes of Mathematics Teachers on their Performance

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Abstract

Performance of mathematics faculty in teaching is a product of various attributes directly or indirectly affecting it. Five (5) attributes explicitly express direct relationship to teaching performance, which are achievement, advancement opportunities, personal growth, work itself and working condition. The impact of motivational attributes were: achievement adds up to confidence and ignites the fire of motivation; advancement opportunities keep Mathematics faculty abreast with the latest teaching trends; personal growth has made teaching better; recognition, as motivational attribute barely affects performance; responsibility as the ‘super ego’ in teaching, helps the teacher define the “do’s and dont’s”; teaching itself increases teaching performance, its impact is better working with the experienced self fulfillment brought about by the job itself; administration and leadership define practices in teaching; co-worker relations define how far is the network of sharing concepts, materials, technologies and teaching opportunities; remuneration, once the needs provided by remuneration are not met, the probability of a disturb teacher delivering instruction is highly likely; and lastly, working condition limits what the teacher can achieve in class. Other attributes that emerged to influence teaching performance is other tasks of the teachers.

Key Words: Cross-case Analysis, Mathematics Teachers, Motivational Attributes, Teaching Performance,

Introduction

It is not Mathematics content that the students hate but the teacher and the method of instruction and or presentation of materials (Simmers, 2011). The questions on what has been done by Mathematics teachers, how did they deliver the instruction, and what caused them to do so are only a few of the many questions why learning Mathematics has been difficult all through the years and even made most students to particularly hate the subject. Though teachers mostly say that students simply hate the subject while students claim that they indeed, hate it, the term “hatred to Mathematics” was not hatred to Mathematics alone. The long-time belief that Mathematics subject is simply hated by the students because it is difficult is not anymore absolute. The teacher is the key to students’ learning, predictive study results say that the teacher is a very important determinant of students’ learning. According to Hamilton, Milhaly, and
Engberg (2018), among school-related factors, the teacher matters most. This, particularly is a bigger issue in higher education, for it has a different level of delivering mathematics instruction.

Teaching Mathematics and Science has become a major issue in different countries and regions, the teachers’ strategies and quality has affected performance of the students as they are not able to understand the content being taught (Teaching Mathematics and Science, 2018). According to the report released by the University of the Philippines, Mathematics education has deteriorated in many place including the Philippines. Studies in the Philippines focuses on students’ achievement in Mathematics, methods and strategies in making students learn and appreciate Mathematics. Only a few have ventured the road to understanding Mathematics faculty and their performance. Some researchers have been trying to find out why mathematics seemed to be hated by most students. A lot of emerging factors were identified that may have caused the students’ attitude towards the subject and it always emerged that the teacher him/herself was never out of it. Every behavior is a product of underlying factors causing it to be put into action.

In education, every stakeholder’s behavior that would eventually affect the teaching learning process must be thoroughly given with utmost consideration. But the most focus of the spotlight for the past years of research are the students (Tan-Ucang & Tan, 2013; Andamon & Tan, 2018; Cordova & Tan, 2018; Asparin & Tan, 2018; Duque & Tan, 2018; Saligumba & Tan, 2018; Tan & Balasico, 2018; Tan, 2018; Tan & Limjap, 2018; Dagoc & Tan, 2018) and student teachers (Tan, Orongan & Guayan, 2015; Escarlos & Tan, 2017). In a student centered classroom, it should always be the students who are given more attention requiring faculty members to design instructional practices to enhance learning (Pagtulon-an & Tan, 2018; Guita & Tan, 2018; Aguanta & Tan, 2018; Coronel & Tan, 2019), develop valid and reliable teacher-made tests to appropriately assess learning outcomes (Tan, Cordova, Saligumba & Segumpan, 2019;) and even exhaust all possibilities to attend and meet students’ needs (Cordova, Tan & Ucang 2018; Cordova, Pagtulon-an & Tan, 2019). Basically, it was neglected that teachers themselves are humans with certain needs and are also affected by these aforementioned various factors.

Faculty performance in delivering higher education Mathematics, whatever it is, is actually a product of various factors significantly affecting it. Despite the high rating of most Mathematics faculty in Davao Oriental State College of Science and Technology (DOSCST) for the past years as evaluated by the students (QCE, 2015, 2016, 2017), the question on what attributes influence these performances. Even if numerically, they have very good teaching performance, it is still limited for the fact that the students are asked using limited questions and facing the problem of students’ hatred to Mathematics caused by teachers themselves is inevitable. Since it turned out that the teacher has somehow caused the students’ inability to learn Mathematics, this research is conducted to understand and identify what have caused the situation. As cited by Mohktar, Yusof and Msini (2012), the inability to learn Mathematics because of this barrier can even cause and/or result in an inability to solve numerous subjects such as Chemistry, Engineering, and other important scientific problems (Bursal & Paznokas, 2006). Bursal and Paznokas (2006) provided a specific recommendation to schools to take the responsibility for training teachers. This is to develop positive attitudes toward Mathematics and teaching Mathematics. The understanding of the issue, knowledge, skills, and commitment of
teachers are keys of success in Mathematics (Suthar, Tarmizi, Midi & Adam, 2009) which are component in measuring teaching performance. These components have been readily affected by both internal and external attributes. The motivation towards teaching is affected by both of these attributes. Understanding the sources of their motivation and what attributes affect teaching performance might help in improving delivery of Mathematics.

With this, the focus of this study is to explain what kind of performance has been done by mathematics faculty member for the previous years and investigating further the attributes affecting it.

In this research, case analysis is utilized to thoroughly examine teaching performance, as well as the motivational attributes influencing it; thus, giving a clearer picture of how and what makes the Mathematics faculty teach the way they did for the past years. The various attributes that influence faculty performance and rethinking about it is one of the best ways to re-assess performance, analyze factors highly affecting it, reflect on results and use it as the basis of enhancing and/or strengthening weaknesses.

Review of Literature

Faculty members are important agents that will help determine the success of delivery of instruction, many researches were conducted to revisit and verify these performances. The need for faculty evaluation arises where data gathered were used for different purposes, evaluative and developmental (Nowell, Handley & Gale, 2010). In the research entitled, “Assessing Faculty Performance Using Students Evaluation in an Uncontrolled Setting”, there is quite a question regarding how the data were collected, faculty evaluation has been used by most higher education institutions. It resulted that though there is much disparity between rating in different settings, it is undeniable that these results are quite making significant impact on faculty teaching practices.

The Qualitative Contribution Evaluation (QCE) used by different State Colleges and Universities to evaluate faculty performance define four (4) sub categories/sub-variable to look into in evaluating faculty performances namely: commitment, knowledge of subject matter, teaching for independent learning and management of learning.

Motivational Attributes

Many studies has attempted unveil quite a lot of motivational attributes associated to teaching performance and are categorized internally and externally. Internal motivational attributes are attributes that are most likely coming from the inside of the person. These attributes are the key elements in ensuring maximum use of resources, maintenance of available human resources, and creating a competitive advantage in elevating performances of employees; specifically the teachers (Chu & Kuo, 2015). Herzberg’s two-factor theory has made emphasis on this internal motivational attributes in which according to Ball (2003) is the most important part of the theory because he said that the main motivating factors are the intrinsic value and satisfaction gained from the job itself in which, in this study we referred to as teaching. He
further explained that those attributes directly concerned to provide motivation are sense of achievement, recognition by both colleagues and the management, level of responsibility, opportunities for advancement and status provided. In this research, specific to teaching are achievement, advancement opportunities, personal growth, recognition, responsibility, and work itself for internal attributes while administration and leadership, coworker relations, remuneration, and working condition for external attributes.

**Methodology**

The methodology of the study includes qualitative research design which use case study approach. Case analysis is used in this study to reveal the actual performance of Mathematics faculty members in the delivery of higher education Mathematics. The locale of the study, is at Davao Oriental State College of Science and Technology (DOSCST), a public higher education institution that offers tertiary education at Davao Oriental. Situated at Guang-guang, Dahican, Mati City. The participants of the study involved the Mathematics faculty members of DOSCST at Mati City. Since the case study needs a detailed narration of the teaching performance, Focus Group Discussion (FGD) method and in-depth interview were used as the specific qualitative method for gathering data for different data sources.

**Findings**

Demographic profile of Mathematics faculty shows that the younger generation has become the majority in teaching Mathematics and are doing their best in engaging to continuing professional development programs. Though young in teaching, quantitative contribution evaluation results showed their outstanding performances. The analysis of teaching performance of Mathematics faculty, all in all commitment, knowledge of the subject matter, teaching for independent learning and management of learning have positive and negative influence. As commitment varies from different teachers and time, knowledge of the subject matter also tend to be negative when too much. Training for independent learning varies with different teaching styles, reflecting on what type of teacher is teaching. Management of learning focuses on classroom management where teachers were acknowledged for the ability to recreate an active classroom environment.

<table>
<thead>
<tr>
<th>Case</th>
<th>Unique Characteristics</th>
<th>Manifestations</th>
<th>Common Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nena</td>
<td>Adjusting and experimenting</td>
<td>*Shifts from strategy to another&lt;br&gt;*Reflects on performance by asking students how is the performance/delivery</td>
<td>*consistent in coming to class&lt;br&gt;*conducts make-up class and or advance class whenever necessary</td>
</tr>
<tr>
<td>Mario</td>
<td>Focuses on deepening appreciation</td>
<td>*Reads more and more books in Mathematics not for basic knowledge but deepening</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Synthesis of the teacher characteristics in terms of teaching
From the qualitative analysis, obvious relationship of attributes to teaching performance deduced from the discussions involve achievement in consistency with teaching performance, advancement opportunities as elevating teaching performance, personal growth as strengthening teaching, working condition in defining limits of what the teacher can do and work itself as a rewarding job. As Chu and Kuo (2015) elaborated, once external motivational attributes are not satisfied, its results would be decreased in terms of employee efficiency. This result conforms to what Ball (2003) emphasized, that external motivational attributes involve job security, working conditions, quality of management, organizational policy, administration and interpersonal relations.

Table 3.
Synthesis of the Mathematics teaching performance

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Core Idea</th>
<th>Manifestations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commitment</td>
<td>Commitment at its best</td>
<td>*Come to class well prepared</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Execute apt teaching strategies and methodologies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Explains topic very well</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Transparency in class</td>
</tr>
<tr>
<td></td>
<td>Commitment at its lowest</td>
<td>*Teaching for the sake of teaching</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Teaching at the pace of intelligent students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Frequent laziness in teaching</td>
</tr>
<tr>
<td>Knowledge of the Subject Matter</td>
<td>Trained to teach</td>
<td>*Knowledgeable on the subjects given to them</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Effective in making students understand the topic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Affected by training during undergraduate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Known to be best and trained well due to teacher standards</td>
</tr>
<tr>
<td>Expectations</td>
<td></td>
<td>*Teachers enhance and improve themselves because of expectations and responsibilities from immediate community</td>
</tr>
<tr>
<td>Too much knowledge is a disadvantage</td>
<td></td>
<td>*Lacks empathy for students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Too fast in teaching</td>
</tr>
</tbody>
</table>
Teaching for Independent Learning

Teachers’ different styles
*Teaching style is based on how they were taught and trained
*Previous scholarly endeavor dictates teaching style
*Most teachers are good at employing independence in learning
*Learning potentials of students are maximized

What you teach is what you are
*Undergraduate and post-graduate training
*Spoon feeding content
*Unobservable interactions between students and teacher
*Assignments and individual activities are useful

Management of Learning

Classroom management
*Creative in transforming class atmosphere
*Training in managing the classroom
*Management of learning is affected by teacher’s attitude
*Maneuver the class
*Versatility in managing the class and eventually learning
*Student confusions regarding the topic is important to be managed

In this study, the attributes that emerged across discussions of all other factors are experience and expectations. Experience is an internal factor and expectation as external. Experience as concluded in the study on the effect of teacher experience by Dial (2008) pronounced an inconclusive result that years of experience, as well as the interaction between years of experience had an effect on the students’ achievement in both communication arts and Mathematics. Other tasks not specifically mentioned also emerged implicitly to affect teaching performance.

Table 4.
Synthesis of the motivational attributes related to Mathematics teachers’ teaching performance

<table>
<thead>
<tr>
<th>Core Ideas</th>
<th>Manifestations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement is consistent with teaching performance</td>
<td>*Achievement proving one’s capabilities&lt;br&gt;*Constantly improves teaching performance&lt;br&gt;*Those who achieved more are performing better in teaching</td>
</tr>
<tr>
<td>Advancement opportunities elevating teaching performance</td>
<td>*Provides additional learning&lt;br&gt;*Opportunities attending continuing professional development programs&lt;br&gt;*Innovative teaching performance&lt;br&gt;*Teaching becoming more efficient</td>
</tr>
<tr>
<td>Personal growth strengthening teaching practices</td>
<td>*Broader understanding and teacher perspective&lt;br&gt;*Experience as a teacher</td>
</tr>
</tbody>
</table>
During the analysis of three different data sources, it became clear how motivational attributes impact teaching performance. Across three individual analyses both three data sources have almost the same context on how it influences faculty performance. For students, it gives an idea on the capability and knowledge of the faculty member. His or her achievement represents how competent the teacher is. Based on the analysis, the following attributes are summarized as follows.

Table 5.
Synthesis of the impact of motivational attributes to Mathematics teachers’ teaching performance

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Core Idea</th>
<th>Manifestations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Attribute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Achievement</td>
<td>Adds up confidence when present; ignites fore of motivation when absent</td>
<td>*Contributed in enhancing performance *Eqip teachers with the skill to easily grasp situation *Holds up teachers’ thoughts of maintaining or achieving further *Motivates teachers to do best</td>
</tr>
<tr>
<td>Advancement Opportunities</td>
<td>A factor that keeps Mathematics faculty abreast with the latest teaching trends</td>
<td>*A privilege of acquiring new knowledge and ideas *Teaching become more efficient *Chance to improve teaching strategies and methods *Reminds the responsibilities and expectations of and maximizing teaching potentials</td>
</tr>
<tr>
<td>Personal Growth</td>
<td>Experience teaches teachers great teaching lessons</td>
<td>*Teachers also learn from their students *Different students help teachers become more wise in dealing with them through time *Manifestations of improvement in teaching styles and approaches *Teachers themselves are student of their own experience</td>
</tr>
</tbody>
</table>
| Recognition | When present, it can motivate; when absent, barely affects performance | *Vital but do not have direct impact in teaching Math subjects  
*When recognized, motivation in giving the best for teaching is boosted  
*Positive recognition ignites positive attitude towards work  
*Acknowledged for efforts exerted is a priceless gift and makes the teacher feel valued |
| Responsibility | The ‘super ego’ in teaching | *Sense of responsibility plays a great role in making learners learn  
*Words are powerful, it could affect the learners  
*Future of the world relies on how the teacher teaches students  
*A teacher is not just teaching inside the class but has many other roles to take |
| Work itself | When teacher’s teaching effort is reciprocated with active participation and performance | *Motivation fuels up when students are doing well and appreciates Math  
*Students eagerness to learn make teachers happy  
*Teaching job is rewarding; but before earning the reward is indeed a challenge  
*Teaching is a noble job |
| External Attribute | Defines practices | *Change of administration means change of practices  
*Different principles held together by administrators/leaders/superiors  
*Keep teachers updated |
| Administration and Leadership | | |
| Coworker Relations | Defines how far is the network of sharing concepts, materials, technologies and teaching opportunities | *Good relationship to colleague has a tad contribution to teaching performance  
*Colleagues help especially in times where opinions or knowledge about a certain topic is needed  
*Boost confidence and camaraderie  
*Everyone in the work place can be both a mentor and a friend  
*Knowing there is someone to help you is indeed great  
*It helped teachers look and think positive |
| Remuneration | Just compensation is provided with just performance | *When offer is big, great performance is expected  
*Expectation of the outcome can be expected from every amount paid |
| | | |
| Working Condition | Necessities must be provided first Limits what the teacher can achieve in class | *Teachers are humans too who has basic needs  
*Health, enjoyment and advancement needs to be considered, a happy teacher makes a happy students  
*Teachers can be more productive when provided with enough resources/facilities  
*Defines the limitations teaching  
*Triggers less motivation |

For the faculty members themselves, achievement adds up to their confidence when they achieved something while it adds up to their motivation and determination when they are still on the process of achieving something. While as observed and experienced by the superior themselves, indeed achievement is consistent or parallel with teaching performance. In a study where achievement goals for teaching were predicted, teachers with high teaching efficacy
maintained personal achievement goals for teaching even when their schools emphasized conflicting goals (Cho & Shim, 2013).

As for the second internal attribute, which is advancement opportunity, three different data sources discussed that keeping the Mathematics faculty abreast with the latest technological advancement and that it elevates teaching performance. It has been explicitly discussed has quite a great role in improving teaching performance through attending seminars, trainings, pursuing post-graduate educations and the like. A study conducted at New Zealand in the Teacher and Professional Development written by Timperley et al. (2007) found out that conditions most closely associated with success were related to the content and form of the professional learning experiences. With this, the relevance and how far the influence of this advancement opportunities to faculty performance has been thoroughly emphasized and acknowledged.

For the third attribute, personal growth has been consistently associated with teaching experience. Constantly, it has been discussed that personal growth is experienced and strengthened through years of experience. Students observed that teachers having known for their length of service teach better. For the teacher themselves, they think that personal growth made them better every day through their constant encounter with teacher related problems. Broader teaching experience is laid out for experienced teacher and this also makes the teaching performance even better. Teachers can develop further by increasing their self-awareness specifically on asking the questions, what type of teacher are they, how are they perceived by others, and what are the strength they should capitalize and weaknesses to work on (Valazza, 2011). According to Collins as cited in the article of Brady (2018), in learning, you will teach and in teaching you will learn. It further implies in the discussion that it is not only the students that benefits from the process of teaching but above all, the teachers themselves. Great teachers recognize their weakness and do their best to overcome these weaknesses (Meador, 2017). The level of personal growth and its quantitative perspective suggest that it most often influenced but proved to have no significant relationship with teaching performance.

Recognition on the other hand, was analysed as an attribute that adds up to motivation when present but has no significant effect to teaching performance when absent. Though students keep on talking about it as a consequence of the teacher’s hard work and that good teaching performance will speak for itself and wide recognition shall follow, for teachers, it does not influence their performance. Though this is the case, when strong and updated reward system and feedback system is established, recognition will play a great part in the teacher’s motivation. It is a vital attribute, but does not have direct impact on the teaching performance as one of the teachers says. As observed by the superiors, recognition adds up to the teachers’ confidence and motivation. When employees and their work are valued, their satisfaction and productivity rises, and they are motivated to maintain or improve their good work (Harrison, 2013).

As for responsibility, this attribute plays the role of the super ego in teaching. Bounded by the duties and responsibilities, according to students this is what make teachers do what they have to. As for teachers, they have acknowledged the power they have within their hand with regards to influencing, helping and molding their students, as relevant as the future of the students practically lies in their hands. According to Hunter (2004), teaching defined as a
constant stream of making and implementing professional decisions before, during, and after instruction to increase the probability of learning. If what a teacher does in consonance with what is now known as cause-effect relationships in learning, and if that teacher’s decisions and actions reflect awareness of the current state of the learner and the present environment, then learning can predictably increase. Expectations, on the other hand, have been emphasized by superiors. The responsibility associated with teachers makes the high demand for expectations as social pressure to teachers emerged. With this, they do their very best to meet up with these expectations.

Work itself in its own is already a motivation for teachers. For students it is in teaching itself that defines how the teacher should be. In actuality as experienced by teachers, teaching in itself is a motivation and is a rewarding job. According to Teaching and Learning International Survey (TALIS, 2013), teaching is valued by society and great majority of teachers surveyed is happy with their job. Motivated teachers are the key ingredient for student engagement and learning (Motivated Teaching, 2017). Teaching is rewarding (School of Education, CSU). Though teaching implies high expectations and social pressure teachers acknowledged that when their efforts are reciprocated with active participation and performance their motivation fuels up. The superiors even see it as a rewarding job.

External attribute such as administration and leadership is seen by the students as the support system that helps carry out the mission and the vision of the institution. Though there is no direct and explicit relationship to teaching performance, teachers said that it has something to do with their practices that somehow lead to affect the way they deliver instruction. Student success or learning, though cannot be attributed directly or solely to faculty teaching, a report puts forward a listing of roles and responsibilities focused on four groups of stakeholders— faculty and staff members, institutional administrators, students and government. Under this kind of rubric, individual stakeholders have clear responsibilities for which they can be held accountable, and no individual stakeholder is solely responsible for achieving ends only partly in his or her control (American Federation of Teachers Higher Education, 2011). Also, administration and leadership establish expectations as what has been the recurring theme from the response of the superior.

Co-worker relations justify how a teacher can deal and interact with others. For the students, observing their teacher’s good relationship with their colleagues makes their work lighter. For teachers themselves, good relationship is found beneficial in their harmonious sharing of concepts, materials and technologies as well as teaching opportunities. The most currently used quality initiative seems to aim to enhance teamwork between teachers, goal-setting and course plans (Henard & Ringuet, 2008). Also, it has created a good and friendly atmosphere in the working environment.

Remuneration, on the other hand, has been found not to affect so much to teaching performance. It is vital and must always be present to maintain and sustain physiological needs. Also, faculty members believed that compensation has something to do with the efforts exerted. The higher the cost means expectations for greater result is present. Hence, it would demand then that for quality teaching performance, it would eventually make the teachers’ performance better,
but according to Goldhaber (2011) that teacher salary incentives reward years of experience and degree levels, traits that do not appear to have a relationship to student achievement but might as well increase motivation of teachers in doing their best in teaching and eventually improving students’ performance. There and then, expectations still remains the one that leads to trigger better teaching performance. Expectation also increases sense of responsibility among teachers.

Working condition limits the teaching performance, without it the great ability for management and experience efforts might be spoiled due to unwanted teaching circumstance. Working conditions are conditions in which an employee works, including but not limited to to such things as amenities, physical environment, stress and noise level, degree of safety or danger and the like. The likelihood of these factors affecting performance is necessary to be examined. Students have different levels of motivation, different attitudes about teaching and learning, and different responses to specific classroom environments and instructional practices (Felder & Brent, 2005).

Conclusion

Therefore, Mathematics faculty of DOSCST comprises of the young majority, they are new to mathematics teaching and are single. As represented by Nena of the neophytes, most common indicators is that of shifting from one strategies to another, whereas Mario of the mid-service teacher, he makes his discussions relevant through constant application of real word problems and thus creating a meaningful learning among students, while Sara representing the senior faculty member, aspires to share beyond what is expected, she shows enthusiasm through coming to class cheerfully to uplift her students’ spirits. As evaluated using the quantitative contribution evaluation, the Mathematics faculty shows outstanding performances. Mathematics teaching performance in terms of commitment, knowledge of the subject matter, teaching for independent learning, and management of learning can be considered good though both of the extreme opposites of its best and least were described. Commitment as its best when teachers come to class well prepared, execute appropriate teaching strategies and methodologies, explains the topic very well and promotes transparency in class. Commitment at the very least happens when teaching is done out of mediocrity, teaching at the pace of intelligent students and frequent laziness in teaching. Knowledge of the subject matter is all in its best for faculty members are trained to teach the content; it is highly expected of them to be knowledgeable. But too much knowledge has never escaped the views of the respondent to be a barrier in having a good teaching performance. Teaching for independent learning is done in different styles, most likely identified based on the experienced training of the teacher. Management of learning indicates that Mathematics teachers are good at their classroom management.

Motivational attributes are achievement, advancement opportunities, personal growth, recognition, responsibility, work itself, administration and leadership, co-worker relations, remuneration, and working condition. Achievement, advancement opportunities, personal growth, working condition, and work itself emerged to suggest most likelihood of the teaching performance.
The impact of motivational attributes is clearly drawn as described from the responses of the respondents. Achievement adds up to confidence when present and ignites the fire of motivation when absent. Advancement opportunities keeps Mathematics faculty abreast with the latest teaching trends. Personal growth has made teaching better strengthened by experience that teaches them great teaching lesson. Recognition, though can motivate, barely affects performance when present. Responsibility as the ‘super ego’ in teaching helps the teacher define what to do and what not to do. Teaching itself increases teaching performance; its impact is better working with experience and self-fulfilment brought about by the job itself. This happens when teacher’s teaching performance is reciprocated with active participation and performance. Administration and leadership defines practices in teaching. Co-worker relations define how far the network of sharing concepts, materials, technologies and teaching opportunities. Remuneration keeps teaching performance on the focus of achieving classroom goals. Once the needs provided by remuneration are not met, the probability of a disturbed teacher delivering instruction is highly likely to happen. Working condition limits what the teacher can achieve in class.

Suggestions and Recommendations

Based on the results, since achievement, advancement opportunities and work itself are of high level and proves to have significant relationship with teaching performance, higher education institutions could use this study as reference in taking a look at their Mathematics teachers’ achievement particularly in their ability to achieve their classroom teaching goals and the students’ achievement. Advancement opportunities and work itself might as well be taken a closer look since these attributes have high level of influence to teaching performance and garner strong linear association to teaching performance.

Since teaching performance is found to be outstanding for most faculty members at DOSCST as perceived by students, it is not good to slack off and remain stagnant. This is a clear indication that excellence need to be maintained or strive for more. Qualitative results of this study mentioned the weaknesses and problems with teaching performance. With this, it might be good to take consideration so that potential problems in the future might be prevented.

Achievement has proved to be as the most considered attribute on teaching performance; thus, higher education institutions may consider to gear up their constant monitoring with the teachers’ progress so that potential weaknesses and problems be aided before it has established its roots.

Future studies could be conducted especially related to this such as identifying teacher related tasks that influence the decrease of good teaching performance. Further investigations on how many related tasks maybe maximized in order to maximize teacher potential without creating a problem in teaching performance. Finally, a separate study on experience and expectations and what they can do to teaching performance might also be done, to further explicate the motivating attributes of Mathematics teachers.
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References


Hill, H. C., Rowan, B., Ball, D. L.. (n. d.). Effect of Teachers’ Mathematical Knowledge for Teaching on


Umbach, P. D. & Wawrzynski, M. R. (n.d.). Faculty Do Matter: The Role of College Faculty in Student Learning and Engagement.


