

## Competencies of Basic Education Teachers and Performance of Learners in 2017-2018 National Achievement Test in the Philippines

Ronald Francisco<sup>1</sup>, Manuel Caingcoy<sup>2,\*</sup>

<sup>1</sup>Department of Elementary Education, Bukidnon State University, Philippines

<sup>2</sup>Department of Secondary Education, Bukidnon State University, Philippines

\*Corresponding email: [manuelcaingcoy@buksu.edu.ph](mailto:manuelcaingcoy@buksu.edu.ph)

Received: 13 March 2022

Accepted: 22 April 2022

Published: 16 May 2022

**Abstract: Competencies of Basic Education Teachers and Performance of Learners in 2017-2018 National Achievement Test in the Philippines. Objectives:** The study determined the competencies of teachers and performance of learners in 2017-2018 National Achievement Test. It identified the influence of teachers' competencies on performance of learners. **Methods:** It employed descriptive-correlational and explanatory designs and it involved three divisions in Northern Mindanao region, Philippines. **Findings:** The Grade 10 and 6 teachers have possessed very satisfactory competencies across areas, while the Grade 10 and Grade 6 learners had a low mastery and very low mastery, respectively. Furthermore, there was no significant relationship between the competencies of teachers and the performance of learners, while their competencies did not significantly influence the performance of learners. **Conclusion:** Teachers were deemed competent in all areas and learners had not acquired most of the competency standards of the curricula. Hence, no matter how competent teachers are, this would not contribute significantly to improving the performance of learners in the National Achievement Test. Thus, competencies of teachers cannot determine the performance of learners.

**Keywords:** competencies of teachers, performance of learners, National Achievement Test.

**Abstrak: Kompetensi Guru Sekolah Dasar dan Kinerja Peserta Didik pada Ujian Nasional 2017-2018 di Filipina. Tujuan:** Penelitian ini menentukan kompetensi guru dan kinerja peserta didik dalam Ujian Nasional 2017-2018. Hal ini mengidentifikasi pengaruh kompetensi guru terhadap kinerja peserta didik. **Metode:** Penelitian ini menggunakan desain deskriptif-korelasi dan eksplanatori dan melibatkan tiga divisi di wilayah Mindanao Utara, Filipina. **Temuan:** Guru kelas 10 dan 6 memiliki kompetensi yang sangat memuaskan di berbagai bidang, sedangkan siswa kelas 10 dan kelas 6 masing-masing memiliki ketuntasan yang rendah dan ketuntasan yang sangat rendah. Selanjutnya tidak terdapat hubungan yang signifikan antara kompetensi guru dengan kinerja peserta didik, sedangkan kompetensi guru tidak berpengaruh signifikan terhadap kinerja peserta didik. **Kesimpulan:** Guru dianggap kompeten di semua bidang dan peserta didik belum menguasai sebagian besar standar kompetensi kurikulum. Oleh karena itu, betapapun kompetennya guru, hal ini tidak akan memberikan kontribusi yang signifikan terhadap peningkatan kinerja peserta didik dalam Ujian Prestasi Nasional. Dengan demikian, kompetensi guru tidak dapat menentukan kinerja peserta didik.

**Kata kunci:** kompetensi guru, kinerja peserta didik, Ujian Nasional.

### To cite this article:

Francisco, R., & Caingcoy, M. (2022). Competencies of Basic Education Teachers and Performance of Learners in 2017-2018 National Achievement Test in the Philippines. *Jurnal Pendidikan Progresif*, 12(2), 545-557. doi: 10.23960/jpp.v12.i2.202212.

## ■ INTRODUCTION

The quality of teachers was seen as the most important determinant affecting learners' performance (Pyne, 2014; Sirait, 2016; Adeniyi et al., 2014). A scholar from Education and Skills of the Organisation for Economic Co-operation and Development (OECD) stressed that the quality of an education system cannot exceed the quality of its teachers (Schleicher, 2012). Research confirmed that of all factors under the control of a school, teachers are the most powerful influence on student success (Babu & Mendro, 2003). "Teachers are the most important factor in students' learning" (Jacob et al., 2020, p. 14). With the critical roles that teachers play in schools, their competencies in terms of knowledge and skills, need to be looked into for these are factors that affect learners' performance.

In the Philippines, the Department of Education (DepEd) uses the Results-based Performance Management System (RPMS) to assess the competencies of the basic education teachers. The RPMS provides a system of continuous and consistent work improvement and individual growth of teachers. With the alignment of the RPMS to the Philippine Professional Standards for Teachers (PPST), performance assessment tools were established with Key Result Areas (KRAs) to be achieved by teachers. The PPST outlines the required skills and competencies of quality teachers, thus, enabling them to cope with the emerging global frameworks. The study considers the Key Result Areas (KRAs) as the competencies of basic education teachers as it contains the domains of the PPST which define teacher quality in the Philippines. These areas include content knowledge and pedagogy, learning environment and diversity of learners, curriculum and planning, assessment and reporting, and a plus factor. The content knowledge and pedagogy (KRA1)

measures how teachers applied the knowledge of the content and how they use a range of teaching strategies that enhance learner achievement and higher-order thinking skills. Learning environment and diversity of learners (KRA2) looks into how teachers manage learners' behavior positively with a classroom structure that engages learners. It includes the use of differentiated, developmentally appropriate learning experiences to address learners' gender, needs, strengths, interests, and experiences. In terms of curriculum and planning (KRA3), teachers are expected to a well-planned, well-managed, and efficiently implemented developmentally sequenced teaching and learning processes that meet curriculum requirements in varied teaching contexts. This also includes selection, development, organization, and use of appropriate teaching and learning resources. Assessment and reporting (KRA4) consider whether or not teachers' assessment strategies are consistent with curriculum requirements. It includes monitoring and evaluation of learner progress by establishing communication with stakeholders. The plus factor (KRA5) includes various activities performed by teachers that contribute to the teaching and learning process (Department of Education, 2015).

In the last quarter of 2014, the DepEd along with experts at the Philippine Normal University and their partner university in Australia conducted a nationally representative survey of government institutions and public schools in the country to determine the quality of elementary and high school teachers. Results revealed that knowledge of subject matter among elementary and high school teachers was low in most subjects. Most teachers lacked the skills in teaching the different subject areas (World Bank, 2016a). Aside from this, DepEd also revealed the latest result of the 2018 Programme for International Student Assessment (PISA) of the Organisation for

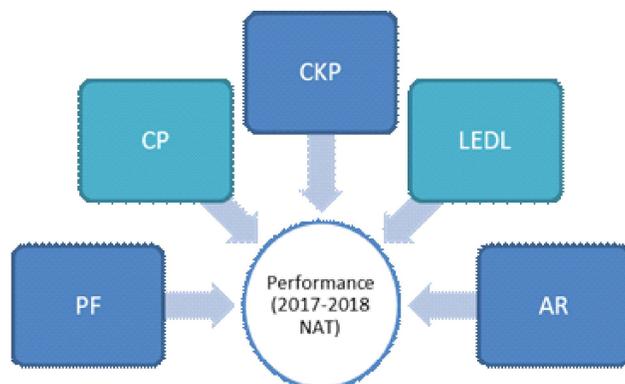
Economic Co-operation and Development (OECD) in which the Filipino learners placed last among 79 participating countries in Reading and near last in Science and Mathematics. Senator Gatchalian was alarmed on the state of education in the country. The good senator noted that the learners did not do well in Mathematics, English, and Science (Ager, 2019).

Besides, the recent National Achievement Test (NAT) results are at “low mastery level” in the elementary grades and are steadily declining for three years. Albano added that in the 2018 NAT, the national average Mean Percentage Score (MPS) in the Grade 6 NAT continued its downward trajectory at 37.44. This was the weakest performance in the history of the standardized examination of the Department of Education. The same was true in the NAT results of Grade 10 and Grade 12, respectively (Albano, 2019).

The present study determined the competencies of Basic Education teachers and the NAT performance of learners. Also, it associated the competencies of teachers with the performance of learners in the National Achievement Test performance in 2017-2018. In particular, the study aims to: (1) determine the level of competencies of basic education teachers based on individual performance commitment ratings in the following key result areas: content

knowledge and pedagogy, learning environment and diversity of learners, curriculum and planning, assessment and reporting, and plus factor; (2) determine the performance of learners in the 2017-2018 National Achievement Test; (3) determine the relationship between the competencies of basic education teachers and the performance of learners in the 2017-2018 National Achievement Test; (4) identify the influence of teachers’ competencies on learners’ performance in the 2017-2018 National Achievement Test; and (5) propose policy recommendations for the professional development of teachers and enhancement of learners’ performance in the National Achievement Test.

The study is anchored on the concept that teacher quality defines student quality (Cinches, Russell, Chavez & Ortiz, 2017). It is hypothesized that basic education teachers’ competencies affect learners’ performance. In the study, the teacher competencies considered are the Key Results Areas in the Results-based Performance Management System (RPMS), namely content knowledge and pedagogy (CKP), learning environment and diversity of learners (LEDL), curriculum and planning (CP), assessment and reporting (AR), and plus factor. On the other hand, the National Achievement Test results were used as learners’ performance.



**Figure 1:** Framework of the study

## ■ METHODS

### Participants

The study was conducted in three divisions of the Department of Education in Northern Mindanao, Philippines. Using a purposive sampling, it involved 17 national high schools and 12 elementary schools. This means that the study did not involve directly the teachers and learners since the data were results of the National Achievement Test in 2017-2018 and the annual performance results at the same time self-assessment of teachers' competencies. It took all schools involved in the national assessment within the selected period.

### Research Design and Procedures

The study used descriptive-correlational and explanatory designs in investigating the influence of basic education teachers' competencies on the performance of learners in the 2017-2018 National Achievement Test. Descriptive design was appropriate in describing the competencies of teachers and performance of learners in the National Achievement Test, while the correlation method was employed in associating the two variables. In estimating the influence of teachers' competencies on the performance of learners, an explanatory design was applied.

Before its conduct, the study secured an approval from the ethics committee and authorities. It observed relevant protocols in keeping privacy and identities of these schools. A coding system was assigned to every school to keep the identity of each schools hidden.

### Instrument

The study used secondary data which were already available at the Malaybalay City, Valencia City, and Bukidnon Divisions of the Department of Education. These data were provided upon the request of the researchers and the endorsement of the National Economic and

Development Authority (NEDA) in region 10. The request was made in the year 2020. The competencies of teachers were taken from the Individual Performance Commitment and Review Form (IPCRF) ratings. These competencies include the content knowledge and pedagogy, learning environment and diversity of learners, curriculum and planning, assessment and reporting as well as the plus factor. The results of the National Achievement Test were also requested from these divisions inclusive of all subject areas covered in the National Achievement Test in 2017-2018. It is understood that this research did not use any instrument in collecting the actual data.

### Data Analysis

Descriptive and inferential statistics were applied in analyzing the data sets. The competencies of Grade 6 and 10 basic education teachers were determined using a 5-point Likert's scale in which the lowest rating of 1 is poor, while the highest rating of 5 is outstanding (Department of Education, 2015). The performance of learners in the National Achievement Test was analyzed using the Mean Percentile Scores (MPS). This performance can be clustered into the following: 35 and below- very low mastery; 36-65- low mastery; 66-85- average mastery; 86-95-moving towards mastery; and 96-100- mastered. The Pearson Product-Moment correlation was employed in finding out if a significant relationship exists between teachers' competency and learners' performance. The competencies of teachers in five key result areas were assigned as independent variables in estimating their influence on performance using a stepwise method of regression analysis. The analysis was performed in IMB SPSS version 22.

## ■ RESULT AND DISCUSSIONS

In public school teaching, the competencies of teachers include knowledge, skills, and values

that individuals demonstrate in achieving results. These competencies shall uphold the Department of Education's core values. They represent the way individuals define and live the values (Department of Education, 2015). As integrated into the Results-based Performance Management System, these competencies are clustered into five as Key Result Areas (KRAs) namely the content knowledge and pedagogy, learning environment and diversity of learners, curriculum and planning, assessment and reporting, and the plus factor.

In Tables 1 and 2, the Grades 10 and 6 teachers from the three divisions had very satisfactory competencies in all key result areas which is .14 (Grade 10) and .16 (Grade 6) lower

than the outstanding performance. These results suggest that these teachers still need further professional development to make their competencies outstanding. The results are somehow consistent to findings of World Bank (2016b). The results found support from the study of Roberto and Madrigal (2018) which revealed that the levels of teaching standards competence and performance of basic education teachers were proficient and satisfactory. World Bank (2016a) recognized that providing teachers with good quality professional development opportunities has been shown to be an effective way of increasing their competencies and improving student learning outcomes in many different settings.

Table 1. Competencies of Grade 10 Teachers in Individual Performance Commitment and Review Form

Division	Coding	Overall IPCRF	Adjectival Rating
Valencia City Division	VCD1	4.53	Outstanding
Valencia City Division	VCD2	4.38	Very Satisfactory
Valencia City Division	VCD3	4.22	Very Satisfactory
Valencia City Division	VCD4	4.42	Outstanding
Valencia City Division	BCD5	4.56	Outstanding
Malayabalay City Division	MCD1	4.61	Outstanding
Malayabalay City Division	MCD2	4.47	Very Satisfactory
Malayabalay City Division	MCD3	4.12	Very Satisfactory
Malayabalay City Division	MCD4	4.21	Very Satisfactory
Malayabalay City Division	MCD5	4.51	Outstanding
Malayabalay City Division	MCD6	4.33	Very Satisfactory
Bukidnon Division	BUD1	4.34	Very Satisfactory
Bukidnon Division	BUD2	4.71	Outstanding
Bukidnon Division	BUD3	4.00	Very Satisfactory
Bukidnon Division	BUD4	4.52	Outstanding
Bukidnon Division	BUD5	3.94	Very Satisfactory
Bukidnon Division	BUD6	4.39	Very Satisfactory
<i>Overall</i>		4.36	<i>Very Satisfactory</i>

Notes: 4.500-5.000(Outstanding); 3.500-4.499 (Very satisfactory); 2.500-3.499 (satisfactory); 1.500-2.499(Unsatisfactory); below 1.499(poor)

At some extent, these teachers can apply the knowledge and content within and across curriculum teaching areas. They would be able to use a range of teaching strategies that enhance learner achievement in literacy and numeracy skills. Also, they can apply a range of teaching strategies to develop critical and creative thinking,

as well as other higher-order thinking skills. Further, these teachers can provide a safe, secure, fair, and supportive learning environment to learners. They can organize a learning environment that is responsive to the diversity of learners. Also, they can translate the curriculum into activities that are relevant to learners.

It is necessary for teachers to acquire mastery in the subject matter as they impart knowledge to learners. Subsequently, it enables them to adequately prepare for content delivery (Cinches et al., 2017). However, the results contradicted the previous findings which reported that the knowledge of subject matter among elementary and high school teachers was low in most subjects. Most teachers lacked the skills in

teaching the different subject areas (World Bank, 2016a; World Bank, 2016b). It was acknowledged that the lack of knowledge, experience, and expertise may become barriers of helping learners overcome their difficulties on learning (Tlale, 2013). Also, it was unveiled that teachers acknowledged the needs for professional development (Gallego & Caingcoy, 2021; Gallego & Caingcoy, 2020).

Table 2. Competencies of Grade 6 Teachers in Individual Performance Commitment and Review Form

Division	Coding	Overall IPCRF	Adjectival Rating
Valencia City Division	VCD1	4.34	Very Satisfactory
Valencia City Division	VCD2	4.56	Outstanding
Valencia City Division	VCD3	4.61	Outstanding
Valencia City Division	VCD4	4.68	Outstanding
Malaybalay City Division	MCD1	4.21	Very Satisfactory
Malaybalay City Division	MCD2	4.52	Outstanding
Malaybalay City Division	MCD3	4.34	Very Satisfactory
Bukidnon Division	BUD1	4.27	Very Satisfactory
Bukidnon Division	BUD2	3.09	Satisfactory
Bukidnon Division	BUD3	4.73	Outstanding
Bukidnon Division	BUD4	4.63	Outstanding
Bukidnon Division	BUD5	4.20	Very Satisfactory
<i>Overall</i>		<i>4.34</i>	<i>Very Satisfactory</i>

Notes: 4.500-5.000(Outstanding); 3.500-4.499 (Very satisfactory); 2.500-3.499 (satisfactory); 1.500-2.499(Unsatisfactory); below 1.499 (poor)

With the Mean Percentage Scores (MPS) in Tables 3 and 4, the Grade 10 learners from the three divisions of Northern Mindanao had a low mastery in the 2017-2018 National Achievement Test, while the Grade 6 learners had a very low mastery in the same achievement test.

Both results indicate that learners did not acquire most of the competency standards (content and performance) in their respective curricula. Thus, they were not ready when they took the National Achievement Test.

Table 3. Performance of Grade 10 Learners (National Achievement Test Results in S.Y. 2017-2018)

Division	Coding	Overall MPS	Interpretation
Valencia City Division	VCD1	42.25	Low mastery
Valencia City Division	VCD2	42.20	Low mastery
Valencia City Division	VCD3	37.87	Low mastery
Valencia City Division	VCD4	43.23	Low mastery
Valencia City Division	VCD5	38.77	Low mastery
Malaybalay City Division	MCD1	40.19	Low mastery
Malaybalay City Division	MCD2	36.47	Low mastery
Malaybalay City Division	MCD3	38.25	Low mastery
Malaybalay City Division	MCD4	41.87	Low mastery
Malaybalay City Division	MCD5	58.17	Low mastery

Malaybalay City Division	MCD6	61.39	Low mastery
Bukidnon Division	BUD1	37.98	Low mastery
Bukidnon Division	BUD2	40.65	Low mastery
Bukidnon Division	BUD3	42.04	Low mastery
Bukidnon Division	BUD4	53.76	Low mastery
Bukidnon Division	BUD5	38.96	Low mastery
Bukidnon Division	BUD6	44.29	Low mastery
Overall		43.60	Low mastery

*Notes:* 35 and below-very low mastery, 36-65-low mastery, 66-85-average mastery, 86-9- moving towards mastery, 96-100-mastered. MPS- Mean Percentile Score.

These results have a lot of implications to the delivery of instruction in the field. School heads can strengthen their instructional supervision and increase their technical support to teachers to enable them to maximize teaching by providing the necessary resources. School heads may

consider developing programs that enhance learners' mastery of the content standards in the curriculum.

These results confirm what had been reported that the recent National Achievement Test (NAT) results are at "low mastery level" in

Table 4. Performance of Grade 6 Learners (National Achievement Test Results in S.Y. 2017-2018)

Division	Coding	Overall MPS	Interpretation
Valencia City Division	VCD1	34.03	Very low mastery
Valencia City Division	VCD2	33.49	Very low mastery
Valencia City Division	VCD3	34.40	Very low mastery
Valencia City Division	VCD4	34.73	Very low mastery
Malaybalay City Division	MCD1	29.97	Very low mastery
Malaybalay City Division	MCD2	29.79	Very low mastery
Malaybalay City Division	MCD3	40.67	Low mastery
Malaybalay City Division	MCD4	33.05	Very low mastery
Malaybalay City Division	MCD5	32.89	Very low mastery
Malaybalay City Division	MCD6	31.61	Very low mastery
Malaybalay City Division	MCD7	31.65	Very low mastery
Bukidnon Division	BUD1	33.22	Very low mastery
Bukidnon Division	BUD2	32.22	Very low mastery
Bukidnon Division	BUD3	34.93	Very low mastery
Bukidnon Division	BUD4	55.03	Low mastery
Bukidnon Division	BUD5	33.68	Very low mastery
Bukidnon Division	BUD6	34.21	Very low mastery
Overall		35.08	Very low mastery

*Notes:* 35 and below-very low mastery, 36-65-low mastery, 66-85-average mastery, 86-9- moving towards mastery, 96-100-mastered. MPS- Mean Percentile Score.

the elementary grades and are steadily declining for three years. In the 2018 NAT results, the national average Mean Percentage Score (MPS) in the Grade 6 NAT continued its downward trajectory at 37.44, the weakest performance in the history of the standardized examination of the Department of Education. The same was true in the NAT results among Grade 10 students.

It was acknowledged that the government, especially the current administration, had invested a lot in education. Yet, still there are gaps in the educational system as manifested in the performance of Filipino learners in the National Achievement Test. Magno and Piosang (2016) recommended that schools need to consider the competencies in the national including international

assessments. School heads should inform teachers about these competencies and prepare them to teach these competencies so that they would be guided in designing the curriculum and instruction. Consequently, teachers may hone learners according to these standards and obtaining higher rating in these assessments is likely high.

The data sets on competencies of teachers and NAT results (performance of learners) were further manipulated to find out if these variables are correlated prior to estimating the influence of the former on the latter variable. Results show

that there is no significant correlation between the competencies of Grade 10 teachers and the performance of Grade 10 learners in the National Achievement Test ( $r=0.112$ ,  $p>.05$ ). The results entail that no matter how competent teachers are in five key result areas, this has no bearing on the performance of learners in the NAT. With the descriptive results above, teachers have acquired a considerable level of competencies (very satisfactory) across key result areas, yet, the evidence indicate that competencies of teachers do not have a proportional relationship with learners' performance in the national assessment.

Table 5. Association between the Competencies of Grade 10 Teachers and Performance of Grade 10 Learners in 2017-2018 NAT

Variables	Grade 10 NAT Performance		
	Coefficient	p value	Remarks
Competencies of Grade 10 Teachers	0.112	0.743	Not significant

The competencies of Grade 6 teachers and the performance of Grade 6 learners in NAT were analyzed to determine their relationship. However, results revealed the same that there is no significant relationship between the competencies of these teachers and the performance of learners in NAT ( $r=0.463$ ,  $p>0.05$ ). Again, these results suggest that the performance of Grade 6 learners in the National Achievement Test is not significantly related to the competencies of Grade 6 teachers. This means that for every unit of increase in teachers' competencies, we cannot expect the same amount of increase in learners' performance in the aforementioned national examination or vice versa.

The current findings lacked support from the existing literature. The results in Tables 5 and 6 contradict to earlier findings. Specifically, it was unveiled that teachers' pedagogical content knowledge was significantly associated with

students' achievement (Cueto et al., 2017). In Guatemala for example, mathematics' teacher knowledge was found associated with student achievement (Marshall & Sorto, 2012). Ha (2011) indicated the significant relationship between the students' perception of their teachers' competence and their performance in Math. However, this inquiry was limited to perception and the performance of learners was limited to summative assessment in the subject. Other than the competencies of teachers, a positive correlation was found between performance in NAT and schools' financial expenditures (Gain & Ancho, 2019).

Using the competencies of Grade 10 teachers across the key result areas, a regression analysis was performed in which the NAT results served as the outcome or endogenous variable. Looking at the F statistics ( $F=0.49$ ,  $df=5$ ,  $p>0.05$ ), it revealed that it did not pass the

Table 6. Association between the Competencies of Grade 6 Teachers and Performance of Grade 6 Learners in 2017-2018 NAT

Variables	Grade 6 NAT Performance		
	Coefficient	p value	Remarks
Competencies of Grade 6 Teachers	0.463	0.295	Not significant

goodness of fit test. This means there is not enough data for this analysis. Further, the regression analysis results show that none among the content knowledge and pedagogy ( $t=-.944$ ,  $p>0.05$ ), learning environment and diversity of learners ( $t=1.178$ ,  $p>0.05$ ), curriculum and planning ( $t=-.428$ ,  $p>0.05$ ), assessment and reporting ( $t=-.720$ ,  $p>0.05$ ), and plus factor ( $t=-.789$ ,  $p>0.05$ ) can significantly influence learners' performance in NAT.

Thus, no matter how competent the Grade 10 teachers are or even if they have very satisfactory competencies, this would not greatly and significantly contribute to the outcome of the National Achievement Test. There can be other factors of NAT results that are not covered in this analysis. These variables may be student, test, and environment-related factors. Probably, the NAT performance may be attributed to learners' readiness and mastery of competencies acquired in the curriculum. Other factors of learners' performance were found other than teachers' competencies. They called these factors as school condition which includes quality of the curriculum materials, tutoring supports, and class size. They also recognized that learners' performances are affected by family resources, student health, family mobility as well as peers (Shavelson et al., 2010).

Another multiple regression analysis was performed where grade 6 teachers' competencies in key result areas served as exogenous variables while grade 6 learners' performance was the endogenous variable. F statistics ( $F=1.98587$ ,  $df=5$ ,  $p>0.05$ ) show that there is not enough data

for this analysis. This means the data failed in the goodness of fit test. Still, the results revealed that none among the exogenous variables such as content knowledge and pedagogy ( $t=-1.150$ ,  $p>0.05$ ), learning environment and diversity of learners ( $t=.272$ ,  $p>0.05$ ), curriculum and planning ( $t=.775$ ,  $p>0.05$ ), assessment and reporting ( $t=-1.771$ ,  $p>0.05$ ), and a plus factor ( $t=-1.019$ ,  $p>0.05$ ) can significantly affect the NAT performance of Grade 6 learners. This suggests that teachers' competencies cannot contribute significantly to the outcome of the national examination that involves grade 6 learners. Probably, there could be other influencers of students' performance in NAT other than the variables considered in this analysis. One study attributed the variance in learners' performance to teaching practices (Blazar, 2016) not to teachers' competence, while Sabado (2019) reported educational attainment of parents and frequency of classroom supervision among school heads as significant predictors of performance in NAT.

The results in Tables 7 and 8 are contrary to the findings of previous studies which reported that the quality of teachers in terms of their competencies was the most important determinant affecting learners' performance (Pyne, 2014; Sirait, 2016; Adeniyi et al., 2014). Further, the results opposed to previous findings which reported that among factors under the control of a school, teachers are the most powerful influence on student success (Babu et al., 2003; Jacob et al., 2020).

Table 7. Influence of Grade 10 Teachers' Competencies on the Performance of Grade 10 Learners

Variables/Key Result Areas	Coefficient	SE	t	sig.
Intercept	28.40775471	49.71	.5714	.579
KRA1: Content knowledge and pedagogy	-11.78457089	12.48	-.944	.365
KRA2: Learning environment and diversity of learners	54.86288181	46.56	1.178	.263
KRA3: Curriculum and planning	-11.65266558	27.22	-.428	.676
KRA4: Assessment and reporting	-10.31526104	14.32	-.720	.486
KRA5: Plus F factor	-17.39518356	22.03	-.789	.446
R=.4292; R <sup>2</sup> =0.1842 (18.42%); SE= 7.947; F stat= 0.49 (df=5) p-value= 0.77				

Table 8. Influence of Grade 6 Teachers' Competencies on the Performance of Grade 6 Learners

Variables/Key Result Areas	Coefficient	SE	t	sig.
Intercept	24.59228045	21.37	1.150	.293
KRA1: Content knowledge and pedagogy	8.912833456	6.594	1.351	.225
KRA2: Learning environment and diversity of learners	4.62507516	16.95	.272	.794
KRA3: Curriculum and planning	10.63820006	13.71	.775	.467
KRA4: Assessment and reporting	-18.566112104	10.48	-1.771	.126
KRA5: Plus F factor	-2.931569552	2.875	-1.019	.347
R=.789; R <sup>2</sup> =.6233 (62.33%); SE= 52.80; F stat= 1.98587 (df=5) p-value= .213				

Moreover, the results opposed the claimed that the more teachers know, the greater the improvements in the learning competencies of primary and junior secondary students (World Bank, 2016a; World Bank, 2016b). It was also reported that the competency of teachers in subject matter knowledge and instructional methods were determinants of student learning outcomes in the Philippines (Yamauchi & Liu, 2013). It was found that 90.8 percent of teachers agree that subject mastery affects performance of learners (Duru et al., 2020). A study showed that teacher's knowledge of subject contributed to learners' achievement (Iqbal, 2019). Hakim (2015) reported that pedagogical, personal, professional, and social competencies of teachers contributed in improving learning performance. The technological, pedagogical, and content knowledge levels of teachers impact academic achievement of learners in which it explains 12% variance in academic achievement (Akturk et al., 2019). Finally, the results contradict to what was

laid down in the framework that teacher quality defines student quality (Cinches et al., 2017).

## CONCLUSIONS

The Grades 10 and 6 teachers had very satisfactory competencies based on individual performance commitment and review form (IPCRF). This means they obtained a certain level of mastery of the content knowledge and pedagogy. At some extent, they can provide a safe, secure, fair, and supportive learning environment to learners. They can organize a learning environment that is responsive to the diversity of learners. Somehow, they can translate the curriculum into activities that are relevant to learners. However, the study concluded that learners have not acquired or obtained all the content and performance standards of the curricula. And so, these learners were not ready when they took the NAT in 2017-2018. Further, teachers' competencies were not significantly correlated with the National

Achievement Test results. Furthermore, none among the key result areas of teachers' competencies can significantly influence learners' performance in NAT. Thus, these competencies cannot affect the performance of learners nor they can determine them.

The study has derived these recommendations for policy considerations: (1) The professional development activities and programs (initiatives) must be aligned to the needs of the basic education teachers across key result areas. Funds shall be poured out for school-based training. Every school can have unique professional development program initiatives. Ensure objectivity in the assessment of teachers' competencies at the beginning of the year so that the initiatives may accurately address the weakest competencies and make a substantial and meaningful improvement in teachers; (2) Limit school activities that disrupt classes, hinder teachers to maximize the instructional time, and those activities that do not support the content and performance standards of the curriculum; (3) Lessen or decongest the competency standards of the K to 12 curricula so that the coverage also of the National Achievement Test can be manageable on the part of the learners; (4) Teachers may provide classroom activities that enhance learners' mastery of the content and performance standards; (5) school heads may strengthen their instructional supervision and increase their administrative support, especially in providing the necessary resources; (6) Conduct more rigorous reviews to grade levels that are subjected to the National Achievement Test to ensure mastery among NAT takers; (7) There shall be another study that explores the factors of learners' performance in the National Achievement Test. A study that includes both the student-factors and environmental factors may be considered, or conduct another study that employs a self-assessment of teachers instead of using the Individual Performance Commitment

and Review Form of RPMS. The study may also include the competencies of teachers that are rated by the school's heads and co-teachers.

#### ■ ACKNOWLEDGMENT

The researchers would like to thank the Bukidnon State University for the financial grant extended for this research. They would like to extend their profound gratitude to the officials of the Department of Education, divisions of Malaybalay City, Valencia City, and Bukidnon for allowing them to use the secondary data from their respective offices. Thank you also to National Economic and Development Authority in region 10 for the endorsement. With their support, the project was successful.

#### ■ REFERENCES

- Adeniyi, C. O., Ogundele, L. O., & Odetola, C. A. (2014). Teacher Quality Factors as Determinant of Students' Achievement in Mathematics. *Journal of Education and Practice*, 5(37), 1-6.
- Ager, M. (2019). Senator Sounds Alarm on Deteriorating Competence of Students, Teacher. *Philippines: Inquirer.Net*.
- Akturk, A. O., & Ozturk, H. S. (2019). Teachers' TPACK Levels and Students' Self-Efficacy as Predictors of Students' Academic Achievement. *International Journal of Research in Education and Science*, 5(1), 283-294.
- Albano, E. (2019). Grade 6 NAT Scores at 'Low Mastery', Level. *Philippines: The Manila Times*.
- Babu, S. & Mendro, R. (2003). Teacher Accountability: HLM-based Teacher Effectiveness Indices in the Investigation of Teacher Effects on Student Achievement in a State Assessment Program. Presented at the Annual Meeting of the American

- Educational Research Association (AERA).
- Blazar, D. (2016). *Teacher and Teaching Effects on Students' Academic Performance, Attitudes, and Behaviors* (Doctoral Dissertation). Harvard Graduate School of Education.
- Cinches, M. F., Russell, R. L. V., Chavez, J. C., & Ortiz, R. O. (2017). Student Engagement: Defining Teacher Effectiveness and Teacher Engagement. *Journal of Institutional Research South East Asia*, 15 (1), 5-19.
- Cueto, S., León, J., Sorto, M. A., & Miranda, A. (2017). Teachers' pedagogical content knowledge and mathematics achievement of students in Peru. *Educational Studies in Mathematics*, 94(3), 329-345.
- Department of Education. (2015). DepEd Order No. 2, s. 2015: Guidelines on the Establishment and Implementation of the Results-based Performance Management System in the Department of Education. DepEd.
- Duru, P. O., Dominic, G. Z., Udoha, C., & Chidimma, O. P. (2020). Effects of Teacher Subject Mastery on the Academic Performance of Secondary School Students in Jalingo Local Government Area of Taraba State. *Journal of Contemporary Education Research*, 20, (8), 344-365.
- Gain, M. G. F., & Ancho, I. V. (2019). Analyzing School Budget And National Achievement Test (NAT). *Jurnal Penjaminan Mutu*, 5(1), 83-96.
- Gallego, P. L. & Caingcoy, M. E. (2021). Variance in Multidimensional Competencies and Professional Development Needs of Kindergarten Teachers. *International Journal of Didactical Studies*, 2(2), 1-8.
- Gallego, P. L. & Caingcoy, M. E. (2020). Competencies and Professional Development Needs of Kindergarten Teachers. *International Journal on Integrated Education*, 3 (7), 69-81.
- Ha, Y. (2011). Perceived teachers' competence, and students' interest in mathematics: Their influence on performance in mathematics of Filipino high school students in Iloilo City (Doctoral dissertation). Central Philippines University.
- Hakim, A. (2015). Contribution of competence teacher (pedagogical, personality, professional competence and social) on the performance of learning. *The International Journal of Engineering and Science*, 4(2), 1-12.
- Iqbal, A., Hussain, S., Parveen, S., & Javaid, Z. (2019). Effect of Teachers' Competencies on Scholars' Academic Achievement and Satisfaction. *European Online Journal of Natural and Social Sciences*, 8(1), 9-16.
- Jacob, F. I. L. G. O. N. A., John, S. A. K. I. Y. O., & Gwany, D. M. (2020). Teachers' pedagogical content knowledge and students' academic achievement: A theoretical overview. *Journal of Global Research in Education and Social Science*, 14(2), 14-44.
- Kamamia, L. N., Ngugi, N. T., & Thinguri, R. W. (2014). To Establish the Extent to Which the Subject Mastery Enhances Quality Teaching to Student-Teachers During Teaching Practice. *International Journal of Education and Research*, 2(7), 641-648.
- Magno, C., & Piosang, T. (2016). Assessment Schemes in the Senior High School in the Philippine Basic Education. *Educational Measurement and Evaluation Review*, 7, 66-87.
- Marshall, J., & Sorto, M. A. (2012). The effects of teacher mathematics

- knowledge and pedagogy on student achievement in rural Guatemala. *International Review of Education*, 58(2), 173–197.
- Mirasol, J. M., Necosia, J. V. B., Bicar, B. B., & Garcia, H. P. (2021). Statutory policy analysis on access to Philippine quality basic education. *International Journal of Educational Research Open*, 2, 100093, 1-8.
- Pyne, C. (2014). A Quality Education Begins with the Best Teachers. *The Sydney Morning Herald*.
- Roberto, J., & Madrigal, D. (2018). Teacher quality in the light of the Philippine Professional Standards for Teachers. *Philippine Social Science Journal*, 1(1), 67-80.
- Sabado, H. T. (2019). Predictors of National Achievement Test VI: The Case of Maddela District II, Division of Quirino. *Ascendens Asia Journal of Multidisciplinary Research Abstracts*, 3(2G).
- Schleicher, A. (2012). Building a high-quality teaching profession. Lessons from around the world. *Educational Studies*, (1), 74-92.
- Shavelson, R. J., Linn, R. L., Baker, E. L., Ladd, H. F., Darling-Hammond, L., Shepard, L. A., Barton, P. E., Haertel, E., Ravitch, D., & Rothstein, R. (2010). Problems with the use of student test scores to evaluate teachers. Economic Policy Institute.
- Sirait, S. (2016). Does Teacher Quality Affect Student Achievement?. An Empirical Study in Indonesia. *Journal of Education and Practice*, 7(27), 34-41.
- Tlale, L. D. N. (2013). Teachers' Competency in Responding to the Needs of Learners with Barriers to Learning. *Mediterranean Journal of Social Sciences*, 4 (13), 143–148.
- World Bank (2016a). Developing a Proficient and Motivated Teacher Workforce in the Philippines. *Philippines Education Note*, No. 3. World Bank.
- World Bank. (2016b). Assessing Basic Education Service Delivery in the Philippines: The Philippines Public Education Expenditure Tracking and Quantitative Service Delivery Study. World Bank.
- Yamauchi, F. & Liu, Y. (2013). Impacts of an Early Stage Education Intervention on Students' Learning Achievement: Evidence from the Philippines. *Journal of Development Studies*, 49(2), 208-222.