

# **Asian Psychological Service and Assessment (APSA) in Relation to the Academic Performance of Kindergarten 2 Pupils of UB-VDTALC**

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## **ABSTRACT**

The Asian Psychological Services and Assessment, Inc. (APSA) was formed in 1987 in response to the assessment and testing needs of Philippine industry in assessing the abilities and personalities of Asian workers. Academic performance is measured and premised through several components per learning area, namely written work (40%), performance tasks (30%) and periodic examinations (30%). The main purpose of the study was to determine the APSA results in Mathematics and English in relation to the academic performance of Kindergarten 2 pupils of the University of Bohol - Victoriano D. Tirol Advanced Learning Center (UB-VDTALC) for School Years 2013-2014, 2014-2015 and 2015-2016. The study utilized purposive complete enumeration design using documentary analysis of existing records of the pupils' academic performance as reflected in Form 137 and APSA results in the learning areas of Mathematics and English for the said timeframe. The resultant data were analyzed using frequency and percentages, statistical

treatments as Pearson Product Moment Correlation and Analysis of Variance. A high positive correlation was seen between the academic performance and APSA result in English for three consecutive school years. Math performance in both APSA and academics were significantly correlated. The performance of pupils in the learning competencies does not significantly vary because the ratings in the three school years were almost the same in both English and Mathematics.

**Keywords** - APSA, academic performance, quantitative method, Pearson Product Moment Correlation, ANOVA, Philippines, Asia

## INTRODUCTION

The primordial aim of education is to equip an individual better with the necessary lifetime tools – knowledge, skills, attitudes, proficiency, and competence that would sustain the person as she/he deliberately toils in the demands of the present society, the evolving and dynamic change and her/his daily interaction. In this perspective, education must be effective, efficient, competitive and relevant. This is the philosophical adherence to what quality education is.

Quality and competitive education entail relevance that is manifested in the curricula of the institution. Relevance is when this education specifically prepares the learners not only his theoretical knowledge but also their practical skills as they endeavor to demonstrate what they learn.

In educational institutions, success is gauged by academic performance or how well a student meets both the national and international standards. As the career competition grows fiercer and tougher, the importance of students performing satisfactorily in school has been underscored and become the bedrock to mold young learners and form their very foundation to make them better and an asset to the nation.

The Department of Education (DepEd) is tasked and entrusted with the responsibility of providing quality basic education to the Filipino learners educating these young minds to become strong nation-builders. In line with the DepEd's philosophy are the vision, mission, and goals of the University of Bohol - Victoriano D. Tirol Advanced Learning Center (UB-VDTALC) which are to nurture an excellent atmosphere articulated in its trinitarian virtues of scholarship, character, and service. The school utilizes a standardized test called the Asian Psychological Services and

Assessment, Inc. (APSA to test conformity of the institution's performance to national norms and international parameters to ascertain academic excellence.

The "Schema Theory" posits that "all knowledge is organized into units called schemata (schema, singular or a conceptual system for understanding knowledge – how it is represented and how it is used." This theory is in line with the current study since students' basic knowledge and understanding of learning components discussed are measured to ascertain students' acquisition of theoretical knowledge and skills (McVee, Dunsmore and Gavele, 2005).

The theory of Jean Piaget's "Stages of Cognitive Development," claims that as the child acquires learning, he must have undergone four stages, namely sensorimotor, pre-operational, concrete operational and formal operations stages. The theory further postulates that the first schemes of a child or infant are to do with the movement (Ojose, 2008).

The Learning-Cognitive Theory of Jean Piaget explains how knowledge is constructed in the human being. It is when information comes into contact with existing knowledge that has been developed by experiences (Huitt and Hummel, 2003).

Albert Bandura's "Social-Cognitive Theory" (2001) recognizes the important role of the social environment in the development of an individual. According to him, humans are rational beings who possess active processing of information.

The major theme of Vygotsky's theoretical framework is that social interaction plays a fundamental role in the development of cognition. Vygotsky's theory stated that every function of the cultural development of a child appears twice. First, on the social level, and later, on the individual level; first, between people (inter-psychological) and then inside the child (intra-psychological) (Keel, 2016).

The Department of Education envisions honing Filipino learners with core values and competencies, allowing them to realize their full potential that contributes to nation-building. Thus, the department continuously improves to serve its stakeholders better.

The academic institutions shall test, validate and calibrate its curricular offerings (matrix, scope, and sequence to ascertain well-articulated curriculum. One way to conduct these processes of testing, validation, and calibration is to subject the curriculum into series of evaluation vis-à-vis the desired goals and learning objectives. The result from these assessments

will speak how the students perform within the academic strand (academic performance and standardized assessment).

### **Asian Psychological Services and Assessment (APSA)**

The Asian Psychological Services and Assessment, Inc. (APSA) was formed in 1987 to respond to the assessment and testing needs of the Philippine industry.

The primary objective of APSA is to construct measuring instruments that will assess the abilities and personalities of Asian workers and develop the norms or standards that can provide the basis for selection and comparison. It also realized the need to improve the quality of instruction in schools through assessment and research. The Standards-Based Assessment is the most updated technology in assessing student achievement against national and international benchmarks. It is a comprehensive battery of tests that measure the student's achieved competencies from Preschool to High school in the core subject areas of Math, Science, and English.

APSA offers the Standards-Based Assessment (SBA in English, Math, and Science, an updated assessment aligned with the DepEd's K to 12 Curriculum and International Standards. With standards-based assessment, individual student, teachers, parents, school administrators will get a lot of benefits. These include providing good feedback on the students' learning development and his/ her readiness degree to move to a higher educational level, pinpointing the competencies of students and learning gaps which serve as bases for learning reinforcement or remediation. Standardized testing became the means of understanding, measuring, managing, and improving educational achievement (Bergmann, 2014). It also determines the performance of the students against the school, national, and international norms. The results of the assessment can also aid teachers and the school to identify strengths and developmental areas which consequently provide information for improvement of the institution's curriculum. Lastly, it provides an objective and relevant feedback to the school regarding its quality and effectiveness of instruction alongside with the national norms and international standards.

### **Academic Achievement**

The performance outcomes denote the academic achievements of the learners. The results, which indicate the extent to which a person has

accomplished specific goals, were the focus of activities in the instructional environment (Steinmayr, Meibner, Weidinger, and Wirthwein, 2014; 2015).

Educational perspective mostly defines cognitive goals either by the interdisciplinary application (critical thinking) or by the acquisition of knowledge and understanding in a particular field (numeracy, literacy, science, history).

This puts the tenet that academic achievement is a multifaceted construct that comprises different domains of learning. The field of academic achievement is wide-ranging and covers a broad variety of educational outcomes. Thus, the definition of academic achievement depends on the indicators used to measure it (Steinmayr et al. 2014; 2015).

To ascertain learning and progress of the learners in VDTALC, the Preschool Department of the said school has adopted the standardized test called APSA. The academic performance is measured and premised through several components per learning area, namely written work 40%, performance tasks 30% and periodic examinations 30%.

The main purpose of the study was to determine the Asian Psychological Services and Assessment (APSA) results in Mathematics and English in relation to the Academic Performance of Kindergarten 2 pupils of the UB-VDTALC for School Years (SY) 2013-2014, 2014-2015 and 2015-2016 with the end view of proposing improvement measures. Specifically, it sought to obtain the results of the following: pupils' performance in English and Mathematics for three consecutive school years as to APSA results and academic performance; learning competencies in the two subjects; correlation between the pupils' academic performance and APSA results; correlation between the performance results in English and Math; and the degree of variance in the learning competencies for the three school years.

## **RESEARCH METHODOLOGY**

The study utilized purposive complete enumeration design using documentary analysis of the existing records of pupils in their academic performance as reflected in Form 137 and APSA results on the learning areas namely Mathematics and English for School Years 2013-2014, 2014-2015 and 2015-2016. The subjects of the study were 155 Kindergarten 2 (K-2) pupils of the UB-VDTALC, a basic education institution that offers Pre-Elementary, Elementary and High School levels, and is one of the departments of the University of Bohol. The

data were analysed using frequency and percentages, statistical treatments as Pearson Moment Correlation and Analysis of Variance.

## RESULTS AND DISCUSSION

The data on academic performance and APSA results in Mathematics and English were then statistically treated, analyzed and interpreted which eventually became the premise of the researchers to draw findings and conclusions, formulate relevant and appropriate recommendations and propose improvement measures.

### Academic Performance of K-2 Pupils

Academic Performance in English of K-2 pupils in three school years are being depicted in Table 1.

**Table 1. Summary of academic performance in English and Mathematics of K-2 pupils**

| Rating Scale                   | English     |             |            | Math       |             |            |
|--------------------------------|-------------|-------------|------------|------------|-------------|------------|
|                                | SY 2013-14  | SY 2014-15  | SY 2015-16 | SY 2013-14 | SY 2014-15  | SY 2015-16 |
| Outstanding (O) 92-95          | 21          | 23          | 28         | 22         | 18          | 30         |
| Very Satisfactory (VS) 88-91   | 21          | 5           | 19         | 14         | 12          | 18         |
| Satisfactory (S) 84-87         | 5           | 11          | 8          | 11         | 4           | 2          |
| Fairly Satisfactory (FS) 80-83 | 6           | 1           | 3          | 4          | 5           | 8          |
| Improving (I) 75-79            | 1           | 0           | 1          | 3          | 1           | 1          |
| Needs Improvement (NI) 70-74   | 1           | 0           | 1          | 1          | 0           | 1          |
| Total                          | 55          | 40          | 60         | 55         | 40          | 60         |
| Mean                           | 89.71<br>VS | 90.63<br>VS | 90.35 VS   | 88.64 VS   | 89.78<br>VS | 90.02 VS   |

The results showed that out of the 155 pupils, there were 72 (46.45%) who had an Outstanding rating, 45 (20.09%) with a Very Satisfactory rating and only one (0.64%) Needs Improvement. On the other hand, pupils' performance in Math revealed 70 (45.16%) were Outstanding, and 44 (28.29%) had ratings of Very Satisfactory. The result indicates that majority of the pupils performed at a Very Satisfactory level in English and Math (See Table 1).

Table 2 exemplifies the summary of APSA performance in English and Mathematics of the K-2 pupils from School Years 2013-2016.

**Table 2. Summary of APSA performance in English and Mathematics of K-2 pupils**

| Rating Scale                                    | English    |            |            | Math       |              |            |
|---|------------|------------|------------|------------|--------------|------------|
|   | SY 2013-14 | SY 2014-15 | SY 2015-16 | SY 2013-14 | SY 2014-15   | SY 2015-16 |
| Highly Proficient (HP)<br>90 and above          | 20         | 16         | 23         | 25         | 11           | 27         |
| Proficient (P)<br>80-89                         | 16         | 10         | 11         | 17         | 19           | 18         |
| Progressing Towards<br>Standards (PTS)<br>70-79 | 8          | 6          | 11         | 0          | 10           | 0          |
| Not Met Standards<br>(NMS)<br>Below 70          | 11         | 8          | 15         | 13         | 0            | 15         |
| Total   | 55         | 40         | 60         | 55         | 40           | 60         |
| Mean  | 80.96 P    | 83.1 P     | 81.23 P    | 81.09 P    | 78.00<br>PTS | 83.00 P    |

The APSA Performance in English of showed that out of the 155 pupils, there were 59 (38.06%) who had a Highly Proficient rating; 37 (28.87%) with a Proficient rating and 34 (21.94%) did Not Meet Standards. On the other hand, the pupils' performance in Math revealed 63 (40.65%) were Highly Proficient, and 54 (34.84%) had ratings of Proficient. The result indicates that majority of the pupils performed at a Proficient level in English and Math (See Table 2).

Table 3 presents the APSA Achievement of the K-2 Pupils as to the Learning Competencies. There were 18 learning competencies in English tested by APSA which were conducted from SY 2013-2014.

**Table 3. APSA achievement of the K-2 pupils in English and Mathematics as to the learning competencies**

| APSA Achievement<br>as to Learning<br>Competencies | English (N = 18) |               |               |             | Mathematics (N =5) |               |               |             |
|--|------------------|---------------|---------------|-------------|--------------------|---------------|---------------|-------------|
|  | SY<br>2013-14    | SY<br>2013-14 | SY<br>2013-14 | Ave<br>rage | SY<br>2013-14      | SY<br>2013-14 | SY<br>2013-14 | Ave<br>rage |
| Highly Proficient (HP)<br>90 and above             | 5                | 4             | 8             | 6           | 1                  | 1             | 2             | 1           |
| Proficient (P)<br>80-89                            | 6                | 7             | 2             | 5           | 2                  | 2             | 1             | 1           |

|   |              |              |              |              |            |              |         |            |
|---|--------------|--------------|--------------|--------------|------------|--------------|---------|------------|
| Progressing Towards Standards (PTS) 70-79 | 2            | 1            | 3            | 3            | 1          | 1            | 1       | 3          |
| Not Met Standards (NMS) Below 70          | 5            | 6            | 5            | 4            | 1          | 1            | 1       | 0          |
| Total                                     | 18           | 18           | 18           | 18           | 5          | 5            | 5       | 5          |
| Mean                                      | 74.67<br>PTS | 77.78<br>PTS | 76.50<br>PTS | 76.31<br>PTS | 80.00<br>P | 78.00<br>PTS | 84<br>P | 80.67<br>P |

On the average for three school years, six (33.33%) were Highly Proficient; five were Proficient; three (16.67%) were Progressing Towards Standards, and four (22.22%) Did Not Meet Standards. The means per school year were at Progressing Towards Standards. There were 18 learning competencies in English tested by APSA. On the average for three school years, six (33.33%) were Highly Proficient; five were Proficient; three (16.67%) were Progressing towards Standards, and four (22.22%) Did Not Meet Standards. The means per school year were at Progressing towards standards.

Meanwhile, there were only five learning competencies in Math tested by APSA. On the average for three school years, one (20.00%) was Highly Proficient; one (20.00%) was Proficient; three (60.00%) were Progressing Towards Standards. The means per school year were at Proficient in SY 2013-14 and 2015-16 and Progressing Towards Standards in SY 2014-15. The competency on "Geometry-knowledge of shapes" garnered the highest rating of Highly Proficient.

The correlation between APSA results and academic performance in English and Mathematics is clearly shown in Table 4.

**Table 4. Correlation table between APSA results and academic performance in English and Mathematics**

| School Year | Mean Acad Per | Mean APSA  | Correlation Results Computed r | Critical Values @ n-2 0.05 LS | Result      | Remarks   |
|-------------|---------------|------------|--------------------------------|-------------------------------|-------------|-----------|
| English     |               |            |                                |                               |             |           |
| 2013-14     | 89.71<br>VS   | 80.95<br>P | r = 0.78542<br>t =9.2381       | C.V.= 0.2663<br>df= 53        | Significant | Reject Ho |
| 2014-15     | 90.63<br>VS   | 84.88<br>P | r = 0.6244<br>t=4.928          | C.V.= 0.31248<br>df= 38       | Significant | Reject Ho |
| 2015-16     | 90.35<br>VS   | 81.20<br>P | r = 0.7579<br>t=8.8485         | C.V.= 0.26856<br>df= 58       | Significant | Reject Ho |



| Mathematics |             |              |                              |                         |                    |              |
|-------------|-------------|--------------|------------------------------|-------------------------|--------------------|--------------|
| 2013-14     | 84.64<br>S  | 81.09<br>P   | $r = 0.46255$<br>$t = 3.798$ | C.V.= 0.2663<br>df= 53  | Significant        | Reject<br>Ho |
| 2014-15     | 89.78<br>VS | 78.00<br>PTS | $r = 0.4313$<br>$t = 2.947$  | C.V.= 0.31248<br>df= 38 | Significant        | Reject<br>Ho |
| 2015-16     | 90.02<br>VS | 83.00<br>P   | $r = 0.254$                  | C.V.= 0.26856<br>df= 58 | Insignifi-<br>cant | Accept<br>Ho |

Correlation results revealed a significant correlation between APSA results and Academic Performance for the English subject in the three school years. The pupils' performance of Proficient in APSA is at par with the pupils' academic performance of Very Satisfactory. However, there is still a need to improve its performance to a higher level.

As regards to the Mathematics subjects, correlation coefficient shows a significant correlation in School Years 2013-14 and 2014-15. However, in School Year 2015-16, the result was insignificant.

The correlation between English and Mathematics performance in APSA and academics is illustrated in Table 5.

**Table 5. Correlation table between English and Mathematics performance**

| School Year          | Mean English | Mean Math    | Correlation Results<br>Computed r | Critical Values<br>@ n-2<br>0.05 LS | Result      | Remarks   |
|----------------------|--------------|--------------|-----------------------------------|-------------------------------------|-------------|-----------|
| APSA                 |              |              |                                   |                                     |             |           |
| 2013-14              | 80.95<br>P   | 81.09<br>P   | $r = 0.5995$<br>$t = 5.4594$      | C.V.= 0.2663<br>df= 53              | Significant | Reject Ho |
| 2014-15              | 84.88<br>P   | 78.00<br>PTS | $r = 0.534$<br>$t = 1.96$         | C.V.= 0.31248<br>df= 38             | Significant | Reject Ho |
| 2015-16              | 81.20<br>P   | 83.00<br>P   | $r = 0.5662$<br>$t = 5.2317$      | C.V.= 0.26856<br>df= 58             | Significant | Reject Ho |
| Academic Performance |              |              |                                   |                                     |             |           |
| 2013-14              | 89.71<br>VS  | 88.64<br>VS  | $r = 0.8854$<br>$t = 13.881$      | C.V.= 0.2663<br>df= 53              | Significant | Reject Ho |
| 2014-15              | 90.63<br>VS  | 89.78<br>VS  | $r = 0.7918$<br>$t = 7.9915$      | C.V.= 0.31248<br>df= 38             | Significant | Reject Ho |
| 2015-16              | 90.35<br>VS  | 90.02<br>VS  | $r = 0.9156$<br>$t = 17.342$      | C.V.= 0.26856<br>df= 58             | Significant | Accept Ho |

English and Mathematics performance were significantly correlated in the APSA results as well as in academics in the three school years. Pupils performance in APSA were at a Proficient level, and the pupils' academic

performance were Very Satisfactory. However, the need to improve its performance to a higher level is still present (See Table 5).

The Analysis of Variance in the three school years is presented in Table 6 as to the learning competencies.

**Table 6. Analysis of variance in the three school years as to the learning competencies**

| Source of Variation | SS        | Df | MS       | Computed F | Remarks       | Critical Value at 0.05 |
|---------------------|-----------|----|----------|------------|---------------|------------------------|
| English             |           |    |          |            |               |                        |
| Column Mean         | 88.037    | 2  | 44.0185  | 0.10299    | <             | 3.19                   |
| Error               | 21795.61  | 51 | 427.364  |            | Insignificant |                        |
| Total               | 21883.648 |    |          |            | Ho: Accept    |                        |
| Mathematics         |           |    |          |            |               |                        |
| Column Mean         | 93.3333   | 2  | 46.667   | 0.287      | <             | 3.89                   |
| Error               | 1946      | 12 | 162.1667 |            | Insignificant |                        |
| Total               | 2039.333  |    |          |            | Ho: Accept    |                        |

The learning competencies in the three school years for both English and Math did not significantly vary. The students' performance in English as to learning competencies were all at "Progressing towards Standards" in the three school years, while the Mathematics performance was at Proficient level. Hence, results do not significantly vary (See Table 6).

## CONCLUSION

The academic performance of the K-2 pupils in English and Math were at the Very Satisfactory level while that of APSA were Proficient in Math and Progressing Towards Standards in English. Many pupils passed and exceeded the passing percentage requirement, confirming the institution's performance to national norms and international parameters.

The learning competencies tested in APSA Mathematics were also achieved. A significant number of learning competencies were identified with a frequency above mean and the performance of the K-2 pupils for three school years was at the proficient level.

A high positive correlation was seen between the academic performance and APSA result in English and for three consecutive

school years. The correlation can be explained in such a way that the pupils showed high performance both in their academic performance and APSA results. On the other hand, Math performance in both APSA and academics were significantly correlated. Both areas obtained proficient level and very satisfactory level.

The performance of pupils in the learning competencies did not significantly vary because the ratings in the three school years were almost the same in both English and Mathematics. With the Proficient level in Math and the Progressing Towards standards in English, there is still the need to improve performance to a higher level.

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