ISSN 2348-3156 (Print)
International Journal of Social Science and Humanities Research ISSN 2348-3164 (online)
Vol. 6, Issue 3, pp: (249-258), Month: July - September 2018, Available at: www.researchpublish.com

Measuring Perceptions on Senior High School (SHS) Curriculum Implementation: An Instrumentation Process

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Abstract: **This paper designs an instrument that measures the perceptions of the entities involved in the Senior High School Curriculum implementation. First, it generates the items that measure perceptions. Second, it validates these items. Third, it establishes the reliability of the items. Lastly, it finalizes the number of items in a semantic differential instrument. Defining the focus, generating items, conducting content adequacy assessment, questionnaire administration, factor analysis, internal consistency assessment, construct validation and replication processes have been done. Fourteen-item semantic differential scales have been developed and validated.**

Keywords: **Instrumentation, Psychometric process, perceptions, Senior High School curriculum implementation, Asia, Philippines.**

1. INTRODUCTION

The full implementation of the K-12 program in the Philippines is already on its second year. For the moment, there are already a number of senior high school graduates who are considered pioneer products of the senior high school curriculum. However, there has never been an attempt to look into the perceptions of the teachers as the front line staff of delivering the instruction, of the administrators who manage the program implementation, and of the students who are the direct recipients of the program (Summer, 1998).

Perceptions are considered shallow assessment of the effectiveness of the program; however, as with data that are incomplete and a program that is new, doing robust assessment is not comprehensive and is not giving justice to the curriculum designers as it is too early to evaluate the program (Magno & Piosang, 2016). Perceptions are baseline data how the entities involved in the program see the implementation process. This gives a glimpse of the competence of the staff, the precision of the implementation, and the readiness of the students to deliver what is in the curriculum.

Regarding the test of perception, Likert Scale has been overly used. With varied items to be looked into, the investigation may lead into other areas which are not the focus of the inquiry. Even though Semantic Differential is commonly used to measure perceptions on subject matters (Kahveci, 2015); its robustness has not been maximized in looking at curriculum implementation yet. It may look too simplistic but it is able to capture the true sense of the perceived characteristics of the curriculum implementation. It is this reason that I design this questionnaire as it is easy to answer and address the guessing of the answers; it is simple to recognize the tendency of the respondents as the items do not bore or tire the respondents in reading; and it is varied but focus as the items only refer to the perceived characteristics of the senior high school curriculum implementation.

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This paper designs an instrument that measures the perceptions of the entities involved in the Senior High School Curriculum implementation. They may be the students, teachers, administrators or parents. First, it generates the items that measure perceptions. Second, it validates these items. Third, it establishes the reliability of the items. Lastly, it finalizes the number of items in a semantic differential instrument.

2. METHOD

Instrumentation is a process in standardizing a research instrument. The figure below summarizes the steps to answer the research questions laid beforehand. Each step is discussed and the subsections on *participant characteristics, sampling, psychometric properties of the instrument used, the procedure* and *the design used* are embedded.

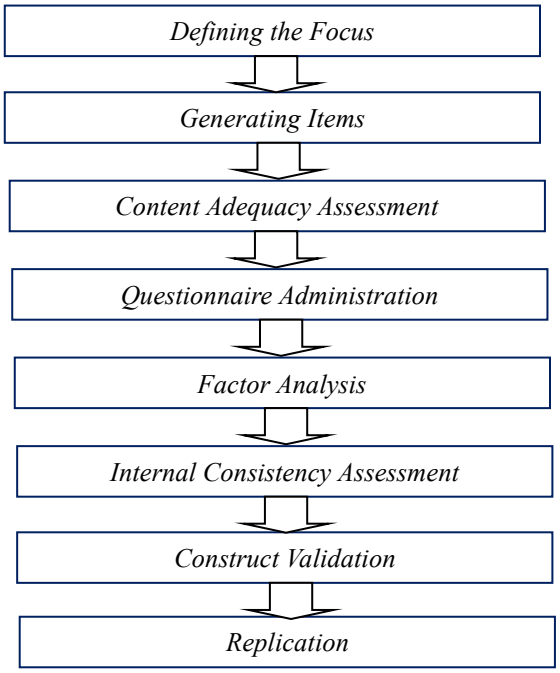

Figure 1: The Instrumentation Process

First, defining the focus is to consider the dimensions of the instrument. There should only be one course until the making of the instrument is successful. Little is done in this phase since it was decided early on that the aim of the paper was to make a measuring tool of perceptions on Senior High School (SHS) implementation.

Second, generating items requires going back to the concepts to be measured by the instrument. These items reveal positive and negative perceptions as long as they reveal one idea; and they are straightforward. Department of Education (2016) has reiterated concepts that characterize Senior High School (SHS) implementation. These and other relevant concepts have been included to as measures of perceptions.

Third, content adequacy assessment needs experts' rating for the contents of the instrument. The needed experts should be familiar if not proficient with SHS implementation. They are familiar with the concepts used to evaluate the curriculum. Further, they are language experts to evaluate the words used in the instrument being made. Thus, the SHS coordinator, SHS guidance coordinator with knowledge on psychometrics and an SHS language teacher were asked to rate the developed instrument. The rating instrument used is a scale of 5 (very appropriate); 4 (appropriate); 3 (neutral); 2 less appropriate; and 1 (not appropriate). Mean and standard deviation are evaluated to reject and accept items. Those items rated below 2.5 would be rejected.

Fourth, questionnaire administration is the first tryout to 100 target respondents. Using G*Power software, 111 respondents are required to allow 0.05 α error probability or 0.95 actual power. The target respondents are students from technical-vocational and livelihood (TVL) track and academic track in the senior high school; hence, they must be represented. Some teachers are target respondents too to represent the implementing body. For this reason, the researcher has reached 149 eligible respondents. Implied consent was read orally and those who intended to join the survey slipped

their names which are then coded for the distribution of questionnaires. The researcher-made 14-item semantic differential questionnaire was administered to measure their perceptions on SHS curriculum implementation. There were only 119 questionnaires that were returned. Kaiser-Meyer, Olkin test (.917) and Bartlett's tests confirm that 119 sample is significantly adequate.

Fifth, factor analysis is conducted to note the inter-item analysis and to decide which items need revision and discarding. This test requires the use of Principal Component Analysis (PCA) and oblique rotation through Direct Oblimin with Kaiser Normalization. It is assumed that semantic differential questionnaire measures related concepts – which in this case, perception of SHS curriculum implementation.

Sixth, internal consistency assessment is to test the reliability of the items. Items that do not have acceptable Cronbach alpha indices are discarded. Inter-item correlations show the relatedness of the items with other items. Field (2009) suggested that relation index of 0.15~0.50 is acceptable. Below 0.15 shows that items are not well related and if more than 0.50, the items are too related that the items are redundant.

Seventh, construct validation is conducted to test whether the designed instrument is similar to other curriculum implementation instruments or not. The researcher made use of Sinnema's (2011) six-point scale instrument with six items to measure support to the New Zealand Curriculum (NZC) and ten items to measure receptivity. The researcher modified it to 11-point scale; and included 14 items for it to be parallel with the developed questionnaire. This was administered to all the target participants. All 149 questionnaires were returned. The means of the conceptually similar items were compared using t-test of independence. One expert recommended using a twelve (12) item questionnaire on Students' Perceptions of Learning in K-12 Program which is adapted from DREEM (Dundee Ready Education Environment Measure) questionnaire. The second phase of questionnaire administration only gathered 54 respondents from the 119 in the administration of the developed questionnaire. Pearson-r was used to test the relationship of the constructs between the developed questionnaire and the standard questionnaire.

Lastly, if these previous steps show robust results, the instrument is finalized. Replication of the steps can be done until the finalization of the new instrument.

Ethical Considerations

Respondents have not been exposed to any harm. Confidentiality and anonymity procedures have been observed in the conduct of the test. The researcher declares no conflict of interest.

3. RESULTS

Defining the Focus

Measuring perception of the students, teachers, parents, or administrators regarding the implementation of the Senior High School curriculum is the focus of this instrument. Perception refers to one's belief, awareness, knowledge and assessment of the curriculum implementation. Senior High School curriculum refers to the academic program to be given in the last two years in Basic Education. Since the implementation has just begun, assessing perception is an initial step to measure the recipients' attitude to it.

Generating Items

Several studies mentioned the preparedness of the Department of Education to implement the K-12 program, including the implementation of Senior High School curriculum. Other studies mentioned the relevance of the curriculum to the growing need of the industry. Some complaints have been noted in the studies that some parents, students and even stakeholders have been dismayed that the principle of implementing Senior high school was not fully realized.

In connection, there are fourteen (14) semantic differential items constructed to measure the perception based on the concepts that recur in the conversations about SHS curriculum implementation and in the readings about K-12 curriculum. These are Prepared-Unprepared; Comprehensive-Incomprehensive; Easy-Difficult; Complete-Incomplete; Organized-Unorganized; Excellent-Poor; Sufficient-Insufficient; Systematic-Unsystematic; Timely-Untimely; Simple-Complex; Aligned-Unaligned; Integrated-Segregated; Precise-Inaccurate; and Clear-Vague.

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Content Adequacy Assessment

Assessing the content adequacy is necessary for an instrument designer to decide whether to add items or not; to discard some items or retain them. Several content assessment methods have been described in the research methods literature. One common method requires respondents to categorize or sort items based on their similarity to construct definitions (Hinkin, Tracey, & Enz, 1997). One may employ different groups such as experts, naive and students to rate if the items match the constructs in the scales.

However, the researcher develops a semantic differential which measures a single construct. Thus, experts are employed to rate if the items completely describe one's perception of SHS curriculum implementation. This assessment was done by three experts who include SHS coordinator, SHS language teacher, and SHS Immersion coordinator. They rated the items 5-very appropriate, 4-appropriate, 3-neutral, 2- less appropriate and 1-not appropriate. It is set that items with mean rating of 2.5 should be discarded. The results show that the minimum mean rating per item 3.33 and the maximum mean rating per item 4. 67, none from the 14 items has been discarded. This means that they are items which believed to be measures of perception in a semantic differential scale.

There was no suggestion from the experts what other items to be added. Presumably, the items have already exhausted the possible concepts related to SHS curriculum implementation. However, the items are rearranged based on the biggest mean rating of the experts down to the smallest mean: excellent-poor, complete-incomplete, prepared-unprepared, organized-unorganized, sufficient-insufficient, systematic-unsystematic, timely-untimely, comprehensive-incomprehensive, integrated-segregated, precise-inaccurate, clear-vague, simple-complex, aligned-unaligned.

Questionnaire Administration

According to some literatures, the best way to decide how many respondents should be included in running the pilot test is to multiply the number of items to ten. There are 14 items which need 140 respondents. Out of these targeted respondents, there were 119 questionnaires returned or 85% response rate.

In this case, the researcher needs to decide whether to give the questionnaires to additional respondents or to conduct Kaiser-Meyer-Olkin (KMO) and Bartlett's Test which would give the basis for the decision of the researcher.

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.917
Bartlett's Test of Sphericity	Approx. Chi-Square	1121.954
	df	91
	Sig.	.000

In table 1, KMO test of sampling adequacy reveals a very acceptable index which is .917; and Bartlett's test result .000<.05 shows that the index is significant. With this, even if the number of sample participants is lacking, it is still adequate.

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Prepared-Unprepared	119	1	11	6.18	2.382
Comprehensive-Incomprehensive	119	1	10	6.41	1.884
Easy-Difficult	119	1	11	6.55	1.840
Complete-Incomplete	119	1	11	6.07	2.246
Organized-Unorganized	119	1	11	6.27	2.201
Excellent-Poor	119	1	11	6.44	2.165
Sufficient-Insufficient	119	1	11	6.18	1.918
Systematic-Unsystematic	119	1	10	6.34	1.880
Timely-Untimely	119	1	11	6.39	2.136
Simple-Complex	119	1	11	6.82	2.244
Aligned-Unaligned	119	1	11	6.42	2.089
Integrated-Segregated	119	1	11	6.63	2.054
Precise-Inaccurate	119	1	11	6.42	2.149
Clear-Vague	119	1	11	6.82	2.382
Valid N (listwise)	119				

The above table reveals that respondents rate in a range of 1 as the minimum scale to 10 or 11 as the maximum scales. The variability of the responses only reaches 2 scales from the mean, around 6.0. With a stable mean, all the items are retained.

Factor Analysis

Factor analysis reveals the latent variables within the series of items in a semantic differential questionnaire. Fourteen items were extracted using Principal Component Analysis and obliquely rotated using Direct Oblimin with Kaiser Normalization for the assumption that semantic differential questionnaire measures related concepts – which in this case, perceptions of SHS curriculum implementation. This is presented in Table 3.

Apparently, there are two components using Direct Oblimin rotation. The first factor Items such as Prepared-Unprepared, Easy-Difficult, Complete-Incomplete, Organized-Unorganized are referring to Curriculum Management. Whereas, items such as Comprehensive-Incomprehensive, Excellent-Poor, Sufficient-Insufficient, Systematic-Unsystematic, Timely-Untimely, Simple-Complex, Aligned-Unaligned, Integrated-Segregated, Precise-Inaccurate, Clear-Vague refer to Curriculum Content.

Table 3: Rotated Pattern Matrix

	Component	
	1	2
Prepared-Unprepared		.699
Comprehensive-Incomprehensive	.454	
Easy-Difficult		.851
Complete-Incomplete		.767
Organized-Unorganized		.559
Excellent-Poor	.517	.414
Sufficient-Insufficient	.611	
Systematic-Unsystematic	.730	
Timely-Untimely	.680	
Simple-Complex	.648	
Aligned-Unaligned	.804	
Integrated-Segregated	1.003	
Precise-Inaccurate	.924	
Clear-Vague	.814	

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 7 iterations.

According to Stevens (2002) as cited in Field (2009) [5], he sets rules on the substantive importance of factor loadings. For him, a sample size of 100 should have a factor loading which is equal or greater than 0.512. In this case, comprehensive-incomprehensive item is clearly loaded on factor 2; Considering that it loads substantially more on factor 1, it therefore belongs to factor 1.

Simply, a principal component analysis (PCA) was conducted on the 14 items with oblique rotation (direct oblimin). The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .92 ('superb' according to Field, 2009). Bartlett's test of sphericity χ^2 (253) = 1121.954, $p < .001$, indicated that correlations between items were sufficiently large for PCA. An initial analysis was run to obtain eigenvalues for each component in the data. Four components had eigenvalues over Kaiser's criterion of 1 and in combination explained 65% of the variance.

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Internal Consistency Assessment

Looking at "inter-item correlations for reliability" is just one of the many validity tests of a scale. Inter-item correlations show the relatedness of the items with other items. As a fast rule, literatures suggest of having 0.15~0.50 as the acceptable correlation indices. Below 0.15 shows that items are not well related to each other and do not measure a single construct. It is also not good to have more than 0.50 as it shows that the items are too related that the items are redundant and must be discarded.

Table 4: Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.522	.148	.720	.572	4.862	.012	14

Table 4 shows the mean of the inter-item correlation of the items. The mean 0.522 can still be within the limits. The items are related to a similar construct and thus are good measures of the construct investigated which is one's perception of SHS curriculum implementation.

Table 5: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.938	.939	14

Table 5 on the other hand, reveals the Cronbach's Alpha to test the reliability of the items. It reveals a substantial index which reaches .938 which complies with the requirement of that a Cronbach's Alpha of .7 and up have high reliability index.

Going back to the factor loadings of the fourteen items, there are two subscales that classify the two factor loadings. Subscale 1: (Curriculum Management): items 1, 3, 4, 5; and subscale 2: (Curriculum Content): items 2, 6, 7, 8, 9, 10, 11, 12, 13, 14

Reliability test is done whether each of these subscales does not change its consistency as the measures of perception on SHS curriculum implementation. The first subscale is labeled curriculum management. The result is displayed in Table 6.

Table 6: Display of Reliability Results of Subscale 1

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Prepared-Unprepared	18.88	27.969	.634	.418	.788
Easy-Difficult	18.51	34.015	.569	.334	.814
Complete-Incomplete	18.99	28.110	.691	.487	.758
Organized-Unorganized	18.79	28.083	.716	.519	.747

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.824	.825	4

Table 6 shows the results of reliability analysis for curriculum management subscale. Looking at the column with the label Corrected Item-Total Correlation, items that are below .3 must be dropped because it only means that it does not correlate very well with the scale. Next thing to look into is the column labeled Cronbach's Alpha if Item Deleted. It indicates the overall alpha (α) if that particular item is not included in the computation. The overall α in this subscale is .825; and it is required that the values in that column should be near the overall α. In this case, the alphas are less than the overall; hence, deleting any of these items do not necessarily increase the overall α. Thus, the first subscale has four items.

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Table 7: Display of Reliability Results of Subscale 2

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Comprehensive-Incomprehensive	58.46	232.268	.628	.470	.929
Excellent-Poor	58.44	219.943	.736	.614	.924
Sufficient-Insufficient	58.69	229.013	.675	.587	.927
Systematic-Unsystematic	58.53	225.285	.763	.608	.923
Timely-Untimely	58.49	222.743	.699	.567	.926
Simple-Complex	58.06	218.310	.732	.589	.925
Aligned-Unaligned	58.45	219.403	.778	.639	.922
Integrated-Segregated	58.24	221.796	.750	.624	.924
Precise-Inaccurate	58.45	215.419	.822	.698	.920
Clear-Vague	58.05	214.862	.736	.589	.925

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.932	.932	10

Again, in Table 7 is the reliability analysis of subscale 2 – curriculum content. The corrected item total correlation column does not show any values less than .3. This means that the 10 items correlate well the scale. It is also good news to see a very good reliability index which is (.932) greater than .8 which makes us be confident that the reliability test result is excellent. The values in the column labeled *Cronbach's Alpha if Item is Deleted* are the values close to the overall α. All the 10 items are retained to measure curriculum content subscale.

Construct Validation (First Phase-Test of Difference)

For construct validation, the researcher compares the newly developed instrument with the standardized questionnaire. Sinnema (2011) has appended in her report the 6 item-scales to measure support to the New Zealand Curriculum (NZC) and 10 item-scales to measure receptivity. Originally, the instrument has 6-point scale but the researcher modified it to 11-point scale to suit the need. From the 14 items, only 12 were included because the two items (miserly-generous and substantially the same-substantially different) are not related to the constructs on perception on curriculum implementation. The standardized questionnaire is then administered to 149 respondents, and then its mean is compared to the mean of the developed questionnaire. The results are reported below.

Test of difference has been conducted because the second administration of a presumably similar test has more response rate (149) compared to the piloting of the developed semantic differential (119). There is no one-to-one comparison of means but rather, all the means are being compared regardless of whose score in the initial test or in the secondary test so that all the 149 respondents' answers can be taken into account.

Table 8: Group Statistics

	Group	N	Mean	Std. Deviation	Std. Error Mean
Type of Q	Researcher-Made	14	6.4243	.22339	.05970
	Standardized	14	6.5679	.64553	.17253

Table 8 provides the summary statistics for the two questionnaires. For the questionnaire made by the researcher and he standard questionnaire have 14 items. The grand mean of the developed questionnaire is 6.4243 with the standard deviation .22, whereas the standard questionnaire is 6.5679 with the standard deviation .65. The developed questionnaire on work pressure has less grand mean, SD and SE compared to the standardized questionnaire.

Table 9 contains the main test statistics. There are two rows, "equal variances assumed and equal variances not assumed.

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Table 9: Main test Statistics

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Means	Equal variances assumed	3.133	.088	-.786	26	.439	-.14357	.18256	-.51884	.23169
	Equal variances not assumed			-.786	16.070	.443	-.14357	.18256	-.53045	.24331

Using t-test, it is assumed that the variances between two groups are equal. Levene's test yields a not significant p value .088≥.05, which means that the variances between the researcher-made questionnaire and the standard questionnaire are equal. Therefore, the principle of homogeneity of variances is not violated to conduct t-test. In this case, we need to look at the values on the second row with the heading equal variances assumed.

It can be noted in the table that the t-score -.786 is not significant as reflected p value .439≥ .05. This means that the null hypothesis that there is no significant difference between the two groups is accepted. Simply put, the researcher-made questionnaire with 14 items is not significantly different compared to the standardized questionnaire (NZC tool). The researcher is confident that the construct validity of the instrument has been established.

Construct Validation (Second Phase-Test of Relationship)

Construct validation using the concepts of convergent validity is to test whether the concepts of the two questionnaires, one that is newly developed and the other one that is standardized must not be unrelated. There were only 69 respondents who returned their answered questionnaire out of the targeted 119. The researcher sees to it that the respondents who have answered the initial test must also be the ones answering the standardized test to check whether their responses are close to being correlated or not.

Regarding the standardized test being administered, the researcher used Bakhshialiabad, Bakhshi, and Hassanshahi (2015) developed questionnaire. It is a twelve (12) item questionnaire on Students' Perceptions of Learning in K-12 Program which is adapted from DREEM (Dundee Ready Education Environment Measure) questionnaire (See appendix A for descriptions). This is believed to be of the same construct with the developed questionnaire; hence, the researcher administered this test.

Field (2009) mentions that Pearson product correlation (r) .00~.40 has low correlation; .41~.69 has high correlation; and .70~.90 has very high correlation. In this case, it is assumed that the more positive one's perception is in the initial test, so is his perception in the second test. Two tests must have related constructs. With this directional hypothesis, one-tailed test is selected.

Table 10: Correlations

		Researcher-Made	Standardized
Researcher-Made	Pearson Correlation	1	.877**
	Sig. (1-tailed)		.000
	N	69	69
Standardized	Pearson Correlation	.877**	1
	Sig. (1-tailed)	.000	
	N	69	69

Note. **Correlation is significant at the 0.01 level (1-tailed)

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The result in table 8 shows that the researcher-made questionnaire is highly correlated with the standardized test r .877; and the correlation is significant with a $p \leq .05$. This means that one's perception on SHS curriculum implementation remains the same with his perceptions of learning in the K-12 curriculum. As these two tests have been assumed to be of the same construct, the high correlation index proves that the construct validity of the new questionnaire is closely related to the standardized questionnaire.

Replication

From the results, the new arrangement of the questions will be based on the two subscales with the items Prepared-Unprepared, Easy-Difficult, Complete-Incomplete, Organized-Unorganized; and Comprehensive-Incomprehensive, Excellent-Poor, Sufficient-Insufficient, Systematic-Unsystematic, Timely-Untimely, Simple-Complex, Aligned-Unaligned, Integrated-Segregated, Precise-Inaccurate, Clear-Vague. These items will also be sorted again considering the content adequacy assessment of the experts. Items with higher means come first.

	Most		More		Somewhat			Less		Least		
Complete	11	10	9	8	7	6	5	4	3	2	1	Incomplete
Prepared	11	10	9	8	7	6	5	4	3	2	1	Unprepared
Organized	11	10	9	8	7	6	5	4	3	2	1	Unorganized
Easy	11	10	9	8	7	6	5	4	3	2	1	Difficult
Excellent	11	10	9	8	7	6	5	4	3	2	1	Poor
Sufficient	11	10	9	8	7	6	5	4	3	2	1	Insufficient
Systematic	11	10	9	8	7	6	5	4	3	2	1	Unsystematic
Timely	11	10	9	8	7	6	5	4	3	2	1	Untimely
Comprehensive	11	10	9	8	7	6	5	4	3	2	1	Incomprehensive
Integrated	11	10	9	8	7	6	5	4	3	2	1	Segregated
Precise	11	10	9	8	7	6	5	4	3	2	1	Inaccurate
Clear	11	10	9	8	7	6	5	4	3	2	1	Vague
Simple	11	10	9	8	7	6	5	4	3	2	1	Complex
Aligned	11	10	9	8	7	6	5	4	3	2	1	Unaligned

Figure 2: Display of the Sorted items

4. DISCUSSION AND CONCLUSION

Making an instrument that measures perceptions on Senior High School curriculum implementation is suitable because of the newness of the curriculum in the Philippine context. Semantic differential questionnaire is easy to answer and unambiguous. The following items cover different areas in curriculum implementation. Failure by many institutions to properly consider and assess student satisfaction within their programs can cause irrelevance of the educational content to the demand of the industry (Sumner, 1988).

The first subscale is on curriculum content. *Prepared-Unprepared* item allows respondents can rate the preparedness of the department in implementing the new curriculum. Lack of materials, lack of facilities, classrooms, and teaching force are common themes that make the stakeholders hesitant in its implementation. In a discussion paper of the Department of Education in 2010 [8], former President Benigno S. Aquino III was quoted, "We need to add two years to our basic education." This does not guarantee the preparedness of the department though. *Easy-Difficult* item refers to the collegial courses that have been cascaded to high school. Implementing this also requires additional training for teachers who are going to handle these courses. *Complete-Incomplete* item rates the contents of the curriculum if they have developed the total person. This also refers to the facilities to aid in giving the content to the students. Lastly, *Organized-Unorganized* item refers to the arrangement of courses in the additional two years of basic education is considered. The contents must be logically arranged to suit the students' needs.

The second subscale is on the curriculum management. *Comprehensive-Incomprehensive* item rates the respondents' perception on curriculum management if it is understandable for efficient implementation. *Excellent-Poor item* measures the management of the implementing body. Excellent implementation means that there is smooth flow in curriculum implementation. *Sufficient-Insufficient* scale refers to the adequacy of materials and labor force in implementing the new

curriculum. *Systematic-Unsystematic* item rates the hassle-free guidelines provided on how to implement the curriculum. *Timely-Untimely* item rates the relevance of the new curriculum. *Simple-Complex* item rates how complicated the curriculum implementation is. Protocols are clearly laid out simply to be followed. *Aligned-Unaligned* item rates the significance of the tracks and strand to one's preferences and career choices. *Integrated-Segregated* item rates the connectedness of the curriculum content to one's management of the resources. *Precise-Inaccurate* item rates the exactness of the procedures done by curriculum implementers. *Clear-Vague* item rates the clarity of focus of the curriculum management.

Measuring perception collects baseline data for newly implemented curriculum. Semantic Differential is one of the appropriate instruments to measure perception. Aside from its easy administration, it also yields valid and reliable measures.

ACKNOWLEDGMENTS

Words of gratitude are accorded to the Department of Education - Talisay City National High School SHS Department; to my professors Dr. Zosima Panares, Dr. Jezel Cutamora, Dr. Elisa Saavedra,; and to the Almighty.

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