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Development and Acceptability of Standardized E-Tool
for the Department of Education's Core Values:
Maka-diyos, Makakalikasan, Maka-tao
at Makabansa

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Abstract:
        The 21st century learners' holistic growth focuses not only on the child's cognitive development but with all aspects and should be reflected in a multidisciplinary manner. Classroom assessment is an integral part of today's instruction and curriculum implementation. As part of the mandates of the Department of Education (DepEd) with its policies on classroom assessment (D.O. 8 s. 2015) and recognition (D.O. 36 s. 2016) for the K to 12, public school teachers lack tool in objective and comprehensive evaluation of student's observed core values. This research concentrated on the development of an electronic tool (e-tool) for the department's core values which undergone content validation from the different experts. A systematic approach was utilized in the development of the e-tool and utilized quantitative and qualitative methods employing developmental and descriptive measures complemented with focused group discussions. It was evaluated by seventeen (17) designated guidance teachers from the elementary, junior and senior high school in the District of Pililla, Division of Rizal. As a result, the teacher-experts perceived that the developed e-tool is highly acceptable considering all the criteria and received positive feedback from the respondents. An advocacy and dissemination activities plan was proposed for the betterment and future utilization of the developed e-tool.

Keywords: Core-Values, Assessment, Awards and Recognition, Conduct Award

Introduction
        Education is an institution responsible for the development of child holistically. In the 21st century instruction, a child's progress must be visible in different aspects of life such as physical, emotional, and psychological rather than concentrating on the traditional academic milestones of intellect.
        As emphasized by the United Nations Education, Scientific and Cultural Organization (UNESCO), "Education should be a means to empower children and adults alike to become active participants in the transformation of their societies. Learning should also focus on the values, attitudes, and behaviors which enable individuals to learn to live together in a world characterized by diversity and pluralism". (Osburg and Schmidpeter, 2013)
        This proves that in today's generation, the focus of education is not just reflected on the knowledge and scores in the different standardized test but also with the character and values formed needed for societal development of the community where one belongs that will contribute towards nation-building.
        In the Philippines, **Paragraph 2 Section 3 Article XIV of the 1987 Philippine Constitution** states that:

> *Educational institution shall inculcate patriotism and nationalism, foster love of humanity, respect for human rights, appreciation of the role of national heroes in the historical development of the country, teach the rights and duties of citizenship, strengthen ethical and spiritual values, develop moral character and personal discipline, encourage critical and creative thinking, broaden scientific and technological knowledge, and promote vocational efficiency.*

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In accordance with this, educational institutions continuously make efforts in integrating character education and formation in the curriculum and the teaching-learning process across different learning areas as the values mentioned in the constitution above contributes in empowering the students to be productive citizens of the country.

It is empowered by **Republic Act No. 8491** also known as the **Flag and Heraldic Code of the Philippines** which stressed that *Maka-Diyos, Maka-tao, Makakalikasan at Makabansa* shall be the national motto as stated in Section 40 of the said law.

To be able to realize this, the Department of Education adopted this motto into its core values as stipulated in the **DepEd Order. no. 36 series of 2013** also known as the **Department of Education Vision, Mission and Core Values** that should be carefully explained to all the employees and stakeholders.

At present, **DepEd Order no. 36 series of 2016** or the **Policy Guidelines on Awards and Recognition for the K to 12 Basic Education Program** is being implemented to recognize the outstanding performance and achievement of learners in academics, leadership and social responsibility as motivating factor for striving excellency and becoming a proactive member of the school and community.

It specifies the different standards, criteria, and guidelines in recognizing students who excel in different aspects. One of which is the conduct award which shall be given for grades four (4) to twelve (12) who consistently and dutifully carried out the core values of the department as indicated in the report card. Furthermore, a candidate must have obtained at least 75% or 21 out of 28 "Always Observed" or AO at the end of the school year. This is in accordance with the guidelines set as stipulated in **Section VI of DepEd Order no. 8 series of 2015 or the Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program** which transmuted Core Values into behavior statements and indicators for objectively identifying observed behavior of the students where a non-numerical rating will be utilized to testify on learner's observed behavior demonstrating the said values that will be reflected in the student's report card.

As these policies were introduced by the department since 2016 and conduct award were given to a number of students in different schools in the country, implementation on the objective rating of student's in terms of their observed core values is being set aside as there is no existing assessment tool that can be utilized to guide the teacher-advisers. With the said absence, the possibility of being subjective and inappropriate measurement may arise as writing non-numerical rating will not be given much attention and the award for student's conduct will be taken for granted.

This condition motivates the researchers to develop a standardized electronic tool to guide the teachers in the district of Pililla to be more objective in rating the observed core values of the students based from the orders and standards of the department with ease through the integration of technology.

Theoretical Framework

This study is anchored to Banduras' Social Learning Theory which emphasized social interaction as a form of learning. Thus, by observing the behavior of others, people assimilate and imitate the behavior which involves rewards (Tadayon, 2012).

It was also anchored to Thorndike's theory of exercise which stressed that the relation between stimuli and responses is reinforced with repetition. (Karadut, 2012) Thus, practicing the correct response helps to reinforce the connection between the stimulus and the corresponding response.

These theories focused on the reinforcement of values and positive attitudes among learners through modeling and consistent repetition. Therefore, with the use of the developed e-tool, students will be able to be aware and exercise the standards expected from them concerning the core values of the Department of Education in pursuit of quality education for all.

Methodology

This study focused on the development and acceptability of standardized e-tool for student's observed core values.

This was conducted in the public elementary and secondary schools in the district of Pililla which composed of fourteen (14) educational institutions. It includes Bugarin ES, Halayhayin ES, Hulo ES, Malaya ES, Matagbak ES, Niogan ES, PES Central, Quisao ES, and Virgilio B. Melendres ES with 9 schools for the elementary, while for the secondary schools, there are five (5) integrated public high schools in the district such as Bugarin NHS, Hulo NHS, Malaya NHS, Pililla NHS, and Quisao NHS.

Participants of the study were designated guidance teacher and/or counselor of each public elementary and secondary schools in the district of Pililla distributed as follows:

Table 1. Distribution of Respondents

Level	Number of Designated Guidance Teacher/ Counselor
Elementary	9
Junior High School	5
Senior High School	3
Total	17

Total enumeration or 100% of the respondents was used to determine the acceptability of the developed standardized e-tool.

The study made use of developmental and descriptive methods of research complemented by focus group discussion.

The researchesr utilized developmental research since it undergone a process of development of a tool using a system and a cyclical process of evaluation and tries to answer the question on how to assess the observed core values of the students evaluating the acceptability of the developed e-tool.

Descriptive research aims to describe the characteristics of the subject being discussed that involves the use of survey and other fact-finding techniques. This method of research was also used since the focus is assessing the level of acceptability of the developed standardized e-tool through the use of questionnaire-checklist.

This study also employed both qualitative and quantitative method of research. Quantitative research was utilized on the utilization of the questionnaire-checklist in the acceptability of the developed e-tool. To satisfactorily provide comprehensive information on the practices of teachers in identifying the student's observed core values and its relation to the developed e-tool, observed strengths and limitations of the material, and recommendation on the improvement of the e-tool, focus group discussion as a qualitative method was conducted with the teacher-respondents.

Specifically, the study sought answers to the following questions:

1. How is the standardized electronic tool for the Department of Education's Core Values developed?

2. What are the practices of the public school teachers in identifying the observed results for student's core values?

3. What is the level of acceptability of the developed standardized e-tool with respect to:

    3.1 functional suitability,
    3.2 performance efficiency,
    3.3 usability, and
    3.4 format?

4. How do the identified practices related to the developed standardized e-tool?

5. What are the strengths and limitations of the developed standardized e-tool?

6. How can the developed standardized e-tool for the student's observed core values be enhanced?

A researcher-made questionnaire-checklist was developed which undergone content validation by five experts which includes: (1) Public Schools District Supervisor, (1) University Professor of the English subject, (1) Principal Consultant in English, (1) Guidance and Counseling expert, and (1) District Statistician.

Part I includes the questions regarding the level of acceptability of the developed standardized e-tool for the observed core values of the students. It consists of four (4) aspects such as functional suitability, performance efficiency, usability, and format. Each variable is composed of six (6) questions with regards to the acceptability of the developed e-tool.

Part II pertains to the practices of public school teachers in the district of Pililla in identifying the student's observed core values, its relationship to the developed e-tool, the observed strengths and limitations of the developed module considering the different variables and the recommendation for the improvement of the developed e-tool in the form of open-ended questions.

The questions for Part I was answered by placing a check on the space provided showing their perceptions on the acceptability of the developed material and interpreted using the Likert's 5-point scale.

Scale	Range	Verbal Interpretation
5	4.20 – 5.00	Highly Acceptable (HA)
4	3.40 – 4.19	Acceptable (A)
3	2.60 – 3.39	Moderately Acceptable (MA)
2	1.80 – 2.59	Less Acceptable (LA)
1	1.00 – 1.79	Not Acceptable (NA)

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Moreover, the following were employed for the analysis and interpretation of data:

To find out the practices of public school teachers in the district of Pililla in identifying student's observed core values, its relationship to the developed e-tool, the observed strengths and limitations of the developed module considering the different variables, and the recommendation for the improvement of the developed e-tool, the qualitative method was used through focus group discussion.

To assess the acceptability of the developed standardized e-tool for student's observed core values as assessed by the respondents in terms of functional suitability, efficiency, usability and format, Weighted Mean was employed.

The output of the study will be of great help in the different level of the educational system.

For the students, they will be much aware of the standards expected from them based on the criterion mandated by the department that will lead to the development of a passionate, nationalistic and value-laden graduates.

For the parents, they will be conscious on how their child will be evaluated based on the observed core values and be able to understand the selection on the recognition of students who carried out the core values as reflected in their report card.

For the teachers, to be more objective in rating the observed core values of the students based from the orders and standards of the department with ease through the integration of technology and be protected as there will be an available evidence in giving conduct award.

For the administrators and the Department of Education, to ensure that educational services and opportunity will be delivered to all students with excellence and integrity.

Findings

Development of the Standardized E-Tool for the Department of Education's Core Values

Classroom assessment is an integral part of instruction and curriculum implementation. It provides opportunities for the teachers, parents, and students of their progress in different aspects. In line with the implementation of the K to 12 Curriculum which aims to develop learner's potential toward becoming a globally competitive member of the community, standard-based education is being empowered. Moreover, assessment tools congruent with the curriculum and standards set were highly encouraged to be utilized in ensuring a fair and constructive opportunity for the students. Policies and guidelines were being implemented to properly evaluate, encourage and scaffold student's development.

However, the researchers observed that K to 12 teachers lack tool and mechanism to be utilized in determining students observed core values which is part of the different mandates and orders of the department. This motivates the researchers to develop an electronic tool that is based on the standards and indicators set by the guidelines that may help the educators assess objectively and easily.

The tool was developed using Microsoft Excel and with the help of Kutools Plus which is an add-in of the said application to perform functions in the conversion, manipulation, and simulation of data. It also used if and countif function of the said application to count non-numeric and numeric data and for its interpretation.

It was content validated by eight (8) experts which includes: (1) Public Schools District Supervisor, (1) University Professor of the English subject, (1) Principal Consultant in English, (1) Principal Consultant in Edukasyon sa Pagpapakatao (ESP), (2) Guidance and Counseling experts, (1) District Statistician, and (1) Secondary ICT Coordinator.

The said e-tool is composed of five tabs which include four quarters, from first to fourth grading period checklist on observed behavior and summary tab which generalizes and interpreted the observations on student's core values.

Each quarter includes the core-values, behavioral statements, and indicators as stated in the Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program (Section VI of Deped Order no. 8 series of 2015). It also includes a checklist for teachers to click whether each indicator was met and will automatically be recorded, analyzed and interpreted using the marking and numerical rating the researcher assigned as seen below:

Marking	Non-Numeric Rating	Numerical Rating
AO	Always Observed	75.01 - 100.00%
SO	Sometimes Observed	50.01 - 75.00%
RO	Rarely Observed	25.01 - 50.00%
NO	Not Observed	0 - 25.00%

The generated total number of "Always Observed" or "AO" behaviors will be analyzed and interpreted to determine whether a learner is a recipient

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of "Conduct Award" as per the Policy Guidelines on Awards and Recognition for the K to 12 Basic Education Program (DepEd Order no. 36 series of 2016) and will be reflected on the summary tab.

The development of the standardized e-tool has followed a systematic series of steps in developing instructional materials as suggested by Rothwell and Kazanas (1992) on their book entitled, "Mastering the Instructional Design Process: A Systematic Approach", and Gagne, Briggs, and Wager (1992) on their book, "Principles of Instructional Design Rothwell and Kazanas (1992). It applied the principles in developing materials and contextualized the said ideology for the development of the e-tool. It includes processes as can be seen in Figure 1.

Figure 1. Flowchart on the Development of the Standardized E-tool
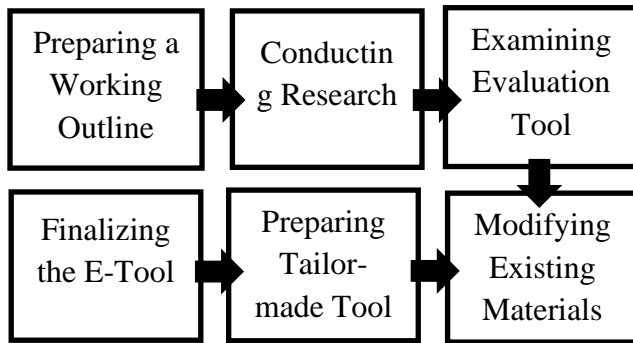
Preparing the working outline is the first step where the researchers prepared a draft of how the student's core values be evaluated as mandated by DepEd orders and decide on what kind of tool should be used.

Then, the researchers conducted a research on the legalities of the core values and behavioral statements as reflected in the Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program (Section VI of DepEd Order no. 8 series of 2015) and consulted from the colleagues on the most feasible way on evaluating student's observed core values as well as the difficulties encountered in doing so.

Upon identifying the indicators and means of verification for student's core values, the researchers then look for existing measure as stipulated on the Policy Guidelines on Awards and Recognition for the K to 12 Basic Education Program (DepEd Order no. 36 series of 2016) which suggest ways on how to recognize students who consistently and dutifully carried out the core values of the department.

From this, the researcher modified the suggested means of assessment into a technology-driven tool that will bring ease and objectivity to the teachers by utilizing the mandated indicators, behavior statements, core values and interpretation as per the different mandates of the department.

Then, the researchers developed a tailor-made tool following the standards set using Microsoft excel with its adds-in and different functions. This tool was content validated by different experts to ensure the accuracy and suitability of the indicators and evaluation procedures to the needs and current situations of the learners.

Lastly, the researcher revised the developed e-tool upon the recommendation of the experts. It was then piloted to the teachers of Bugarin National High School to check possible inconsistencies and malfunctioning of the program developed before proceeding to its validation and evaluation.

Practices of the Public School Teachers in Identifying the Observed Results for Student's Core Values as Perceived by the Guidance Teachers in the District of Pililla

The researchers conducted a focused group discussion with the designated guidance teachers from the elementary, secondary and senior high level on what are the practices of teachers in identifying student's observed core values and it revealed that as perceived by the respondents, majority of the teachers used observation as a way of identifying the said core values which involves personal judgement and opinion which may become subjective for the part of the students. This practice is in line with the mandates of the Policy Guidelines on Classroom Assessment for the K to 12 Basic Education Program (Section VI of DepEd Order no. 8 series of 2015) which suggest that the advisers and the classroom teachers shall agree on how the said observation be conducted.

Also, some teachers designed contextualized ways on determining the core values of students such test practices, daily routines activities, discussions with students, daily communications, utilizing rubrics and checking student's records such as attendance and classroom performance.

However, it was also noted that some teachers also used academic performance as reference for the core values. It is in accordance with the findings of the study conducted by Das et.al (2014) which reveals that students' positive attitude may influence their academic

achievement, therefore a student who showed desirable behavior will result into a better academic performance and vice versa.

Evaluation of the Developed Standardized E-Tool for the Department of Education's Core Values by the Teacher-Respondents

Table 2 shows the result of the evaluation of the developed standardized e-tool for the Department of Education's core values by the teacher-respondents.

It can be gleaned that with regards to the criteria in evaluating the developed e-tool such as functional suitability, performance efficiency, usability and format, with an average of 4.78, the researchers-made e-tool is Highly Acceptable by the teacher-experts, the guidance teachers from the different level both in elementary, junior high school and senior high school.

Table 2. Composite Table on the Evaluation of the Developed Standardized E-Tool for the Department of Education's Core Values by the Teacher-Respondents

Criteria		Mean	VI
Functional Suitability The e-tool…	1. matches the prescribed standards.	4.82	HA
	2. states indicators that are specific.	4.82	HA
	3. includes measureable statements.	4.82	HA
	4. contains attainable descriptors.	4.76	HA
	5. has results-oriented scales.	4.88	HA
	6. is modifiable.	4.88	HA
	Average	**4.88**	HA
Performance Efficiency The e-tool…	1. is objective.	4.76	HA
	2. is time-saving.	4.12	HA
	3. is cost-effective.	4.47	HA
	4. is standards-based.	4.82	HA
	5. can generate accurate results	4.71	HA
	6. is accurate.	4.65	HA
	Average	**4.57**	HA
Usability The e-tool…	1. is easy to operate.	4.82	HA
	2. is specific in directions.	4.88	HA
	3. uses interface that can clearly be understood.	4.94	HA
	4. can easily be accessed.	4.65	HA
	5. convenient to use.	4.71	HA
	6. is free from compatibility issues.	4.59	HA
	Average	**4.77**	HA
Format The e-tool has…	1. readable fonts.	4.94	HA
	2. colors that are friendly to the users.	5.00	HA
	3. content properly outlined.	4.88	HA
	4. customized design.	4.94	HA
	5. presented information systematically.	4.94	HA
	6. simple lay-out design.	5.00	HA
	Average	**4.95**	HA
Weighted Average		**4.78**	HA

It implies that the developed e-tool will be of great aid in assuring that the core values among the students will be properly evaluated as this tool will serve its function, efficient in terms of its performance, user-friendly and uses appropriate format.

The finding of the study is parallel to the study conducted by Rashad et. al (2008) titled "E-Assessment Tool: A Course Assessment Tool Integrated into Knowledge Assessment" which reveals that the utilization of an electronic tool like the Integrated Assessment System (IAS) will be useful in getting useful information about individual learner's progress and will allow the instructor and students test themselves both independently and/or directed by the instructor.

The Relationship of the Identified Practices to the Developed Standardized E-Tool

Upon exposure to the developed e-tool, some teacher-respondents found out that their practices are somehow related to the developed e-tool since it is taken from the mandates of the department where the characteristics are identified in an easier, more specific, accurate and systematic way, however there are some who sees the tool as time consuming to accomplish as compared to the traditional and most frequent observation method of identifying student's core values.

The Strengths and Limitations of the Developed Standardized E-Tool

The developed standardized e-tool for student's observed core carries unique and modern characteristics that might bring advantages and disadvantages to the users. It strengths according to the experts are: the ease and convenience of use, factual, realistic, justifiable and

accurate result can be easily generated which can become the basis in determining the conduct awardee utilizing technology.

On the other hand, its limitations as evaluated by the teacher-experts is that the developed e-tool only suits for classes, inconvenience for non-computer literate users, time consumption in accomplishing the tool, subjectivity in some ways and being unsuited to each individual. These limitations can be analyzed and reflected upon for the improvement and future use of the tool.

Suggestions on the Enhancement of the Developed Standardized E-Tool for the Student's Observed Core Values

Ideas and recommendations were asked on how the developed e-tool be improved, accordingly, some of the said suggestion for the enhancement are: arranging the indicators according to weight, inserting instruction for independent use and linking to other forms like SF 9 through google sharing. But overall, as majority feedbacked, the material already established its validity and reliability as per the different DepEd orders and its application.

Conclusions

The output of the action research will be of great help to the different level of the educational system.

In light of the findings of the study, the paper concluded that:

1. The systematic approach well-matched in the development of standardized e-tool for the Department of Education's Core Values,

2. Majority of the elementary and secondary teachers in the district of Pililla used observation in identifying student's core values as verified by the guidance teachers,

3. As perceived by the respondents, the developed e-tool is highly accepted considering the different variables such as functional suitability, performance efficiency, usability and format,

4. In general, the practices employed by the elementary and secondary teachers in the district of Pililla have similarities in the manner of evaluation of the developed e-tool,

5. The ease and convenience of use, factual, realistic, justifiable and accuracy in the result through the possible use of the e-tool are considered to be its strengths, however, limitations were noted such as the suitability to larger groups of students, inconvenience for non-computer literate users, time consumption in accomplishing the tool, subjectivity in some ways and being unsuited to each individual, and

6. Constructive suggestions for possible improvement were recommended by teacher-experts such as: arranging the indicators according to weight, inserting instruction for independent use and linking to other forms such through google sharing.

Recommendations

Furthermore, the paper recommends the following:

1. The researchers present the output and the result to the district, division and the Education Program Specialist and technical Working Group in Edukasyon sa Pagpapakatao (ESP) to further establish the developed e-tool's validity,

2. Consult with Information and Communications Technology (ICT) experts for improving the developed e-tool's technical aspects such as minimizing time in the usage of the e-tool and linking of the result to other school forms,

3. The researchers may propose the utilization and piloting to a specific school to test its reliability,

4. Future research on the utilization of the e-tool as evaluation by the end-users, the teachers,

5. Future research may focus on the other aspects assessing the performance of students and other groups of respondents, and

6. Disseminate results and benchmark the utilization of the developed e-tool.

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