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Initial Evaluation of the Understanding by Design (UbD) Framework in Writing Learning Modules

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Abstract: This study sought to determine the extent of effectiveness of the use of the Understanding by Design (UbD) framework in writing learning modules. Since the framework's introduction in 2010, the De La Salle Santiago Zobel (DLSZ) high school teachers have eventually grasped the key principles of UbD and have embraced the new paradigm in module preparation. Is the UbD framework effective in reaching the instructional goals of the school? In this study, primary research data were obtained by conducting a survey among pre-selected high school teachers across 11 subject areas. There are 12 items in the survey questionnaire. Ten (10) items pertained to the three (3) stages of the UbD framework, while two (2) items were concerned with how helpful the design framework is in systematically preparing the learning modules. An open-ended question was also asked on what teachers can suggest to make the modules more relevant and useful to them as users and more effective in obtaining instructional goals. Data analysis was conducted thereafter. The UbD framework has helped enhance the delivery of instruction in the High School Department of DLSZ through the following: new curricular developments such as curriculum mapping, construction of the unit assessment matrices (UAM), and revision of the learning module components; more meaningful integration of values in lessons; more effective management of instructional time; and enriched student learning.

Key Words: curriculum; instruction; Understanding by Design (UbD); Learner Centered Learning Environment; learning module

1. INTRODUCTION

1.1 Background of the Study

The advent of the K to 12 Basic Education Program aims to offer a seamless, responsive, enriched, decongested and learner-centered brand of education. Hence, a new vision for Filipino learners was formed. This shared vision is to "produce holistically developed learners who have 21st century skills and are prepared for higher education, middle level skills development, employment and entrepreneurship"[1].

In response to this educational transformation, De La Salle Santiago Zobel (DLSZ) has adopted the Learner-Centered Learning Environment (LCLE) approach in instruction. This approach subscribes to the principle that students who are engaged in their own learning can construct meaning from the facts they acquire and use this in situations that are real-world and complex[2]. To complement this approach, a design framework was introduced in Academic Year 2010-2011 by the school's consultant and resource person, Dr. Miguel Q. Rapatan. This framework is called Understanding by Design (UbD). Developed by Grant Wiggins and Jay McTighe in 1998, UbD is an instructional design model that puts emphasis on students' understanding. As a backward design process,

[1] Retrieved from http://www.gov.ph/k-12/

[2] Retrieved from http://www.ascd.org/ASCD/pdf/siteASCD/video/Moving_Forward_with_UBD.pdf

it also takes into account the integration of technology in the curriculum. The logical and practical appeal of the UbD framework and the LCLE approach are the reasons why many schools have a high interest in them. According to Tomlinson and McTighe (2006), UbD "acknowledges the centrality of standards but that also demonstrates how meaning and understanding can both emanate from and frame content standards." In this way, students are able to construct meaning from the facts they acquire and use this in situations that are real-world and complex[3]. It is also important to note that LCLE offers an instructional framework for addressing learner variance as a critical component of instructional planning[4].

There is a logic in combining the UbD framework with the LCLE approach. To begin with, both are not only mutually supportive of one another, but both "need" one another. Inside the classroom, teachers deal with four important educational elements: who they teach (students), where they teach (learning environment), what they teach (content) and how they teach (instruction). Tomlinson and McTighe (2006) assert that "if teachers lose sight of any one of the elements and cease investing effort in it, the whole fabric of their work is damaged and the quality of learning impaired". UbD is predominantly a curriculum design model. Its focus is what and how teachers teach, and what assessments to collect as evidence of learning. Tomlinson and McTighe (2006) state that its main goal is "delineating and guiding application of sound principles of curriculum design". Moreover, it highlights instruction for understanding for student success. On the other hand, LCLE is predominantly instructional design models. Both focus on who, where and how the teachers teach. Its main goal, according to Tomlinson and McTighe (2006), is "ensuring that teachers focus on processes and procedures that ensure effective learning for varied individuals". Furthermore, they claim that differentiation models address the "imperative of differentiating quality curriculum".

In DLSZ, students are given many opportunities to learn effectively inside the classroom. In planning the curriculum and delivering instruction, teachers are guided by national standards that they align with the Lasallian Guiding Principles (LGPs). By doing so, the learning goals – acquisition, meaning making and transfer – are articulated through different curricular processes: mapping the curriculum, constructing the assessments and writing the learning modules. These aforementioned goals consistently reflect the need for students to construct meaning from the facts they acquire and use this in new situations that are real-world and complex. With DLSZ espousing a progressive pedagogy, students have become more reflective, creative, critical and resourceful problem-solvers. This supports the school's vision of producing world-class graduates, who are also expected to possess Lasallian values and attitudes that enable them to become responsible Filipino citizens. Overall, the school promotes the attainment of developmental and holistic learning of its students.

2. METHODOLOGY

Selected faculty members across 11 subject areas, namely: Art, Christian Living, Computer Technology, English, Filipino, Mathematics, Music, Physical Education, Science, Social Studies and Technology and Livelihood Education, participated in the study. The subject area coordinators selected 60% of the teachers in their respective unit with the period of stay as a consideration.

SUBJECT AREA	NO. OF RESPONDENTS
Art	1
Christian Living	5
Computer Technology	4
English	9
Filipino	8
Mathematics	11
Music	1
Physical Education	3
Science	9
Social Studies	5
Technology and Livelihood Education	2

[3] *Ibid.*
[4] Retrieved from http://www.ascd.org/publications/books/105004/chapters/UbD-and-DI@-An-Essential-Partnership.aspx

There was an anticipated number of 63 respondents, but only 54 answered the survey. The nine (9) teachers, who were unable to submit their questionnaire, were either absent during the retrieval of the questionnaires or had other unspecified reasons.

Table 1. Summary of Respondents per Subject Area

In the questionnaire, 10 items were prepared that pertain to the three stages of the UbD framework: Stage 1 or Identifying Desired Results, Stage 2 or Determining Acceptable Evidence and Stage 3 or Planning Learning Experiences and Instruction. The remaining two (2) items were concerned with how helpful the design framework is in systematically preparing the learning modules. An open-ended question was also asked on what teachers can suggest to make the modules more relevant and useful to them as users and more effective in obtaining instructional goals.

3. RESULTS AND DISCUSSION

Seven (7) out of the 12 items were rated as *highly evident*. Items 1, 2, 3 and 4 were rated *highly evident* by 41 (76%), 37 (69%), 31 (57%) and 27 (50%) teachers, respectively. Likewise, items 7, 8, 9 were rated *highly evident* by 36 (67%), 25 (46%) and 27 (50%) teachers, respectively. Such *highly evident* items reveal that the UbD framework:

- shows that the developed goals and competencies are based on national standards, enhanced with 21st century skills and aligned with the Vision Mission of the school (item 1);
- helps teachers plan learning modules in such a way that assessments and activities are aligned with the learning goals as evident in the curriculum maps (item 2);
- enables the learning goals to consistently reflect the need for students to construct meaning from the facts they acquire and use this in new situations that are real-world and complex (item 3);
- helps teachers know what they should assess before the delivery of instruction which they find useful (item 4);
- helps teachers design assessments that require students to be self-reflective, to develop their own perspective and to understand others' points of view (item 7);
- makes developing activities easier for teachers with the learning goals and assessments given ahead (item 8) and;
- helps teachers prepare different activities to suit the learning styles that are evident among students (item 9).

The rest of the items were rated as *evident*. Items 5 and 6 were rated *evident* by 28 (52%) and 29 (54%) teachers, respectively. Likewise, items 10, 11 and 12 were rated *evident* by 25 (46%), 26 (48%) and 30 (56%) teachers, respectively. Such *evident* items reveal that the UbD framework:

- helps realize the learning goals through pre-assessments (item 5);
- helps students demonstrate understanding of the desired goals through performance task/products (item 6);
- conforms well with the adoption of the MI theory and the LCLE approach (item 10);
- helps teachers undergo a systematic way of preparing the learning modules (item 11) and;
- enables teachers to organize their thoughts, put these into writing and implement these in instruction which they find easier to accomplish (item 12).

Concrete suggestions were made by the teachers in response to making module writing more relevant and useful (to them as users) and more effective in attaining instructional goals. They suggest:

- making the learning module format simpler (11 respondents or 20%);
- more time for module writing (7 respondents or 13%);
- showing examples of well-written modules across subject areas (5 respondents or 9%);
- more intensive seminars on module writing (3 respondents or 6%);

- making the teachers stay in a level for a longer period of time for mastery of the module prepared (2 respondents or 4%)
- inviting a different resource speaker on module writing (2 or 4%)
- consistency in monitoring pre-assessments easily gauge student misconceptions on topics taught (1 respondent or 2%);
- the implementation of the Multiple Intelligences theory in module writing (1 respondent or 2%);
- more extensive trainings for integration of technology in module writing (1 respondent or 2%);
- an immediate feedback-giving from the subject area coordinator in terms of module writing (1 respondent or 2%)
- more effective ways to integrate horizontally (1 respondent or 2%)
- using diagnostic tests instead of pre-tests (1 respondent or 2%)
- more time for delivery of instruction than module preparation (1 respondent or 2%);
- integrating the LGPs meaningfully in the lessons (1 respondent or 2%) and;
- applying a system in the drafting of learning modules (1 respondent or 2%).

4. CONCLUSIONS

The UbD framework has helped enhance the delivery of instruction in the High School Department of DLSZ through:

1. new curricular developments such as curriculum mapping, construction of the unit assessment matrices (UAM) and revision of the learning module components;
2. more meaningful integration of values in lessons;
3. more effective management of instructional time; and
4. enriched student learning.

New Curricular Developments

Since AY 2013-2014, teachers have been designing curriculum maps, which show alignment of standards and competencies with assessments and activities. They thematically align assessment, curriculum and instruction anchored on the LGPs to achieve student understanding of key concepts. As a tool for analysis, communication and planning, a curriculum map enables teachers to thematically align curriculum, instruction and assessment. The creation of such document has enabled teachers to check gaps and redundancies regarding learning competencies. Moreover, it has enabled them to identify opportunities for integration among subject areas. Similarly, teachers have been constructing unit assessment matrices (UAM), which reflect competencies vis-à-vis assessment items and scoring guides. They design assessments that require students to be self-reflective, to develop their own perspective and to understand others' points of view. Likewise, the revision of the learning module components was implemented in AY 2014-2015 to suit the new pedagogy. Teachers plan learning modules in such a way that assessments and activities are aligned with the learning goals as evident in the curriculum maps. In essence, teachers are able to organize their thoughts, put them into writing and implement them in instruction through the use of the UbD framework in preparing learning modules.

More Meaningful Integration of Values

The initiative of integrating the LGPs is based on the UbD framework, which suggests that an academic institution must first have a vision of their ideal graduate. The said vision then serves as the framework for curriculum mapping and creation of course contents, methods of assessment, and modes of classroom instruction. In designing the curriculum, teachers make sure they integrate Lasallian values. This makes the classroom learning experience more significant and meaningful for teachers and students across all subjects. The integration of the LGPs begins with the creation of the curriculum map. Curriculum mapping, as previously mentioned, thematically aligns assessment, curriculum and instruction anchored on the LGPs. The articulated LGPs for a learning unit are then written in Stage 1 of the learning module. Subsequently, its integration with the learning

activities are mapped out in Stage 3 of the same document.

More Effective Management of Instructional Time

In the learning module, a specific time frame for instruction is clearly indicated by the teachers. Particularly in Stage 3, teaching strategies used, process or guide questions, and short descriptions of activities are specified per teaching day. The learning plan flow consists of three (3) parts: Introduction, Interaction and Integration. During the Introduction part, the essential questions (EQ) and the transfer goal are introduced. Thereafter, all learning and differentiated activities are implemented in the Interaction part. Finally, the performance task or product is collaboratively created in the Integration part, usually with scaffold activities for transfer of learning.

Enriched Student Learning

Since the school has adopted the LCLE approach and the UbD framework, teachers are able to prepare different activities to suit learning styles evident among students. With the learning goals and assessments given ahead, they find it easier to develop such activities. As a response, students demonstrate understanding of the desired goals through the performance tasks or products. A scaffold of activities for transfer is likewise highlighted in the learning modules. In effect, classroom experiences become more dynamic and meaningful because teachers consider what learning styles and activities work best for each student.

In general, the findings of this study show that the DLSZ high school teachers perceive the UbD framework to be useful in writing learning modules based on its principles that they find *highly evident* and *evident*. At heart, they said that the framework has helped them in the planning and delivery of instruction in terms of determining the learning goals, constructing assessments and preparation of different activities.

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