

# **Teachers' Resourcing TLMs Practices and Perceptions: Its Effects on Students' Performance**

Rommel W. Otero

rommel.otero001@deped.gov.ph

Department of Education – Carcar City Division

## **Abstract**

This study investigated the teachers' practices and perceptions in resourcing teaching and learning materials and examined how these affected the performance of the students in the core subjects. Participants of this study were the 243 elementary teachers in District I and District II of Carcar City Division of the Department of Education. For the span of 15 days, the participants were given the survey tool online. The consolidated data were gathered and retrieved from google form database and treated statistically. The results suggested that the teachers' practices in resourcing learning materials is significantly correlated with the teachers' perception towards the DepEd Learning Resource Portal and the non-DepEd initiated learning materials provider. Both the teachers' practices and perceptions towards resourcing TLMs have significant effect on the students' academic performance. As a result, an action plan for measurement and evaluation of teachers' learning material resourcing skills is devised. The skills measurement will evaluate the teacher's subskills such as their responsive skills, ICT skills, writing skills, lay-outing skills, and illustration skills.

**Keywords:** resourcing practices, perceptions, teaching and learning materials (TLMs), academic performance

## **Introduction**

The dynamics of learning clearly identified the complex ecosystem for managing teaching and learning practices. With so many learning and teaching resources that can be sourced out online, one may overlook the cyber backyard that the Department of Education has provided to educators through the Learning Resources Management and Development System (LRMDS).

As stated in DM 82, s.2017, LRMDS is a system to provide accessible teaching and learning materials (TLMs) and resources for professional development. It includes guidelines, standards and specifications on how to assess, evaluate, harvest, modify, develop and produce quality-assured contextualized, localized and indigenized materials. It is an online repository or library for downloadable TLMs that are framed in relevance and appropriateness to the curriculum through the LR Portal.

The LR Portal allows users to access digitized versions of some contextualized and localized TLMs in response to the identified educational needs. It even allows uploading of learning resource materials through LRMDS (DO 35, s.2010). It undeniably offers a lot of promising potentials to the end users who are the teachers. However, its accessibility would always redound to its effectivity. Most teachers clamor over matters of time accessing the portal. Each attempt could not even guarantee 100% success rate to access. How smoothly had it been running remains a question

to many who might have overlooked the practical usage of the portal itself and the other means that educators employ in its absence. Clearly the one size fits all couldn't fully respond to the call of times that require educators in addressing TLMs gaps.

Susara (2016), in her study on *The Potentials and Problems of LRMDs* identified some problems like absence of a clearer format as to the guidelines in producing learning resources, time constraint when accessing the portal, lack of instructions and trainings, lack of motivation for the teachers to produce an LR, lack of monitoring, system glitch like not being able to access to the downloadable files, etc., location of the school where internet access might be difficult, and no internet connection that serves as the very backbone in getting into the portal itself. And so, while all else fails, teachers make all means to get access to the needed resources in other useful sites or sources within their grasp.

While it is the goal of the Carcar City Division to maximize the usage of the portal, it does not limit the teachers' initial practices in resourcing out teaching and learning materials that might have brought about some positive effects on the students' academic performance. On a study conducted by Ghanney (2008), it is revealed that inability of teachers to use instructional materials leads to having passive listeners in class, poor participation in lesson, lack of interest in the subject, absenteeism and finally poor performance in the subject matter. As thus, it is desired to establish equilibrium between the teachers' practices in resourcing teaching and learning materials from the LR Portal and other various sources if it would not leave out potential grey areas on the different identified problems. After all, this study is geared towards identifying best resourcing practices that teachers do that have some positive effects on students' performance. The non-biased evaluation of the usability of the portal, moreover, will be used as the baseline for further enhancements that can be applied to the portal itself and to the system at large.

Generally, teachers must source-out and develop learning materials based on the following standards of quality and consistency listed below. DepEd LRMDs manual assert that, a professionally developed learning materials should include the following in consideration; Clearly and concisely articulated to the learning goals and objectives; appropriately considered the student grade level and reading level; content should be engaging, relevant, and up-to-date to the learning competencies; appropriate to use in differentiated learning opportunities; content should be well-designed and attractive to students; and the general concept should be adaptable for individual learning styles and learning needs.

### **Purpose of the Study**

This study aimed to determine the different practices and perceptions in resourcing teaching and learning materials among the Elementary teachers of Carcar City Division and their effects on the students' academic performance for the S.Y. 2018 – 2019. The findings of the study will be the bases for an action plan.

### **Research Question**

What are the teachers' practices and perceptions in resourcing teaching and learning materials and how do they affect the academic performance of the students?

## **Methodology**

### **Design**

This study was conducted to 33 Elementary Schools under Carcar City Division which is in the Southern part of Cebu Province, having approximately forty kilometers road-length from Cebu City. The respondents of this study were the teachers of the identified Public Elementary Schools (ES) where 127 of them from District I and 116 from District II. Stratified random sampling was used to identify the number of respondents to be selected from each District. An online randomizer was used to determine the respondents from the respective group and were extracted from the randomizer one at a time until the desired sample size will be reached.

This study is a quantitative – descriptive study that determined the teachers' practices and their perceptions in resourcing teaching and learning materials. A document analysis was also employed for the academic performance of the learners in the four identified core subjects.

### **Data Gathering Methods**

The set of questionnaires were set up and organized by parts and according to the classification of concept. The researchers notified (through calls or email) the school heads on the procedure on how teachers can access the questionnaire and the process on how to key-in the responses. An email was sent to identified respondents inclosing the step-by-step procedure on how to use the Google Forms Application and the access link. Respondents were given a span of three days to key-in and send the responses. Acknowledgment receipt was replied to the respondents upon receipt of response. Constant follow-up through messenger app and email notification were sent daily in order to gather and consolidate the data efficiently.

### **Research Instruments**

A researcher-made questionnaire was used in the study in determining the profile and resourcing practices of the respondents. It comprises of three parts; Part 1 gathered the profile of the respondents which include; name(optional), age, gender, civil status, position, Subject Area (s) Taught, Field of Specialization (Major subject in bachelor's degree), Grade Level (s) Taught, Number of Teaching Load per Day(Hours), Number of Teaching Preparation, Assigned School Category, School Location, Number of ICT Training attended, number of Learning Material Resource Training attended, and Number of Material Development Training attended.

Part 2 gathered the respondent's practices on how frequent the identified activities were done in resourcing teaching materials and learning materials. A Likert scale of five pre-coded responses (such as; Very Frequently, Frequently, Occasionally, Rarely, Never), with a Cronbach's alpha of 0.926, was utilized.

Part 3 gathered the respondent's reaction on what level agreement of on the DepEd initiated Portals and development materials which respondents used in resourcing teaching materials and learning materials. A Likert scale of five pre-coded responses (such as Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree), with a Cronbach's alpha of 0.814, was utilized.

## Results and Discussion

This part presented, analyzed and discussed the data gathered from the respondents with respect to the specific problems of this study.

The respondents were asked to answer a 5-point Likert scale questionnaire regarding their practices in resourcing teaching and learning materials. The result is presented in table 1.

Table 1

*Teachers' Practices in Resourcing Teaching and Learning Materials*

Indicators	District I		District II	
	Mean	Interpretation	Mean	Interpretation
1. Opening and updating DepEd LR account profile	2.46	Rarely	2.47	Rarely
2. Accessing DepEd LR Portal	2.46	Rarely	2.41	Rarely
3. Downloading materials from DepEd LR Portal	2.29	Rarely	2.31	Rarely
4. Publishing learning material in DepEd LR Portal	1.54	Never	1.53	Never
5. Proposing learning materials to get published in DepEd LR Portal	1.51	Never	1.63	Never
6. Accessing DepEd Official websites	3.06	Occasionally	3.02	Occasionally
7. Downloading materials from DepEd official websites	3.09	Occasionally	3.12	Occasionally
8. Publishing learning material in DepEd official websites	1.75	Never	1.94	Rarely
9. Proposing learning materials to get published in DepEd official websites	1.53	Never	1.64	Never
10. Accessing non-DepEd Official websites	2.73	Occasionally	2.97	Occasionally
11. Downloading materials from non-DepEd official websites	2.84	Occasionally	2.99	Occasionally
12. Publishing learning material in non-DepEd official websites	1.61	Never	1.84	Rarely
13. Proposing learning materials to get published in non-DepEd official websites	1.49	Never	1.64	Never

14. Accessing Division Learning Resource Center	2.09	Rarely	2.37	Rarely
15. Downloading materials from the Learning Resource Center	2.08	Rarely	2.32	Rarely
16. Publishing learning material in the Learning Resource Center	1.52	Never	1.67	Never
17. Proposing learning materials to get published in the Learning Resource Center	1.52	Never	1.65	Never
18. Accessing non-Division or non-DepEd Learning Resource Center	2.58	Rarely	2.59	Rarely
19. Downloading materials in non-Division or non-DepEd Learning Resource Center	2.57	Rarely	2.61	Occasionally
20. Publishing learning material in non-Division or non-DepEd Learning Resource Center	1.57	Never	1.72	Never
21. Proposing learning materials to get published in any non-Division or non-DepEd Learning Resource Center	1.45	Never	1.56	Never
22. Accessing stakeholders (other than DepEd-provided materials)	1.88	Rarely	2.18	Rarely
23. Preparing and using self-made teaching materials	3.54	Frequently	3.66	Frequently
<b>OVERALL</b>	<b>2.12</b>	<b>Rarely</b>	<b>2.25</b>	<b>Rarely</b>

It is revealed that, on the average, both teachers from District I and II “rarely” practiced the indicators pertinent to resourcing TLMs with a mean of 2.12 and 2.25, respectively. It is also that District I teachers scored lowest or “never” ( $M = 1.45$ ) for the indicator “*Proposing learning materials to get published in any non-Division or non-DepEd Learning Resource Center*” while District II teachers scored lowest or “never” ( $M = 1.53$ ) for the indicator “*Publishing learning material in DepEd LR Portal.*” Both District I and II teachers responded “frequently” ( $M = 3.54$ ,  $M = 3.66$ , respectively) for the indicator “*Preparing and using self-made teaching materials.*”

This means that teachers rely so much from their own skills of developing the whatever teaching and learning materials they need for their classes and the types of learners they have. All indicators relevant to publishing and proposing learning materials to the DepEd learning portal or other websites are not done by the teachers.

Also, they only occasionally visit or access the portal itself and even other websites. The Internet now revolutionized providing information services (Narasimhamurthi, 1995) but if there is limited access to it, lack of ICT literacy skills and unreliable internet connectivity, both teachers and learners would miss out the various and varied learning resources on the Internet (Chirwa, 2018).

This implies that most of the materials that teachers used in the teaching and learning processes are self-made. However, there are too little if not none with regards to their attempts and willingness to have their own materials assessed, quality-assured and shared through the DepEd learning portals or other websites.

Technology, as a means to resourcing ample choices of TLMs, can seem difficult especially when potential users lack the requisite skills and attitude – which will make them shy away from using something they are not familiar with (Mapunda, 2004). This study further investigates the teachers' perception towards using the DepEd LR Portal as shown in table 2.

Table 2  
*Teachers' Perception towards DepEd LR Portal*

Indicators	District I		District II	
	Mean	Interpretation	Mean	Interpretation
1. beneficial in currently handled subjects	3.8	Agree	3.75	Agree
2. has a user-friendly interface features that are convenient to use to first-time users	3.54	Agree	3.51	Agree
3. easy access portal that requires non-sophisticated hardware and high-speed internet connection	3.32	Undecided	3.44	Agree
4. provides illustrations and other materials useful for developing a localized material	3.58	Agree	3.65	Agree
5. delivers immediate feedback to requests and complaints from the users	3.38	Undecided	3.41	Agree
<b>OVERALL</b>	<b>3.52</b>	<b>Agree</b>	<b>3.55</b>	<b>Agree</b>

On the average, teachers from District I and II revealed general agreement about the DepEd LR portal ( $M = 3.52$ ,  $M = 3.55$ , respectively). However, on the accessibility of the portal, most of the teachers in District I were undecided ( $M = 3.32$ ) while teachers in District II agreed ( $M = 3.44$ ) that DepEd LR portal is easy to access and does not require sophisticated hardware and high-speed internet connectivity. District I teachers, though, were undecided ( $M = 3.38$ ) whether they received immediate feedback for their requests or complaints or not.

This result further enhanced the call for institutions to identify effective strategies for supporting increased, cost-effective (Mtebe, 2015), efficient, timely and

relevant response and solutions to concerns, issues and program with the learning management system, say the DepEd Learning Portal.

Table 3

*Teachers' Perception towards non-DepEd Websites and Other Sources*

Indicators	District I		District II	
	Mean	Interpretation	Mean	Interpretation
1. Other non-DepEd websites are not useful to currently handled subjects.	3.33	Undecided	3.44	Disagree
2. Other non-DepEd websites are do NOT provide materials that are useful for developing localized materials.	3.38	Undecided	3.37	Undecided
3. Libraries from universities do NOT provide materials that are useful for developing localized materials.	3.24	Undecided	3.27	Undecided
4. Public libraries do NOT provide materials that are useful for developing localized materials.	3.25	Undecided	3.22	Undecided
5. Stakeholders provided materials do NOT provide materials that are useful for developing localized materials.	3.45	Undecided	3.16	Undecided
<b>OVERALL</b>	<b>3.33</b>	<b>Undecided</b>	<b>3.29</b>	<b>Undecided</b>

As reflected in Table 4.0, among the five concepts that determine the teachers' perception towards non-DepEd websites and other sources of learning materials, only in indicator 1 that teachers in District II disagreed ( $M = 3.44$ ) with the idea that non-DepEd websites are not useful in resourcing learning materials to their currently handled subjects.

Generally, teachers' responses on the other indicators have shown neither agreement nor disagreement. This result brought another question as to whether teachers resort to searching for TLM sources on the Internet or any other sources. Also, this calls to further examine the effectiveness of teaching and learning processes (Tety, 2016) considering the provisions for instructional material supplies, supports from stakeholders and availability of localized materials.

Table 4

*Academic Performance of Students in their Final Grades for SY 2018 - 2019*

Grades	District I		District II	
	Number of Classes	Percent (%)	Number of Classes	Percent (%)
English	73	37	73	43
Mathematics	74	39	78	41
Science	39	37	38	48
Filipino	64	36	70	44

The researcher purposely selected the core subjects such as Math, Science, English, and Filipino to gather data on the students' academic performance. In the case of elementary schools, there might be grades of different subjects that are taken from the same teacher. Commonly, that situation happens given that most of the elementary teachers are handling general subjects and holding a regular load of six subjects or more. Table 4 above showed the number of classes per subject in district I and II.

Table 5

*Significant Relationship between Teachers' Practices in Resourcing Teaching and Learning Materials and Students' Academic Performance*

	Teaching and Learning Resourcing Practices District I		District II	
	r	Sig	r	Sig
Ratio of Students Getting above 85 for English	0.398**	0.000	0.600**	0.000
Ratio of Students Getting above 85 for Filipino	0.513**	0.000	0.608**	0.000
Ratio of Students Getting above 85 for Mathematics	0.524**	0.000	0.460**	0.000
Ratio of Students Getting above 85 for Science	0.478**	0.002	0.453**	0.004

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*. Correlation is significant at the 0.05 level (2-tailed)

As reflected in table 5, the teachers' practices in resourcing teaching materials and learning materials has significant relationship on the students' academic performance particularly in Math ( $r = 0.524$ ,  $r = 0.460$ ), Science ( $r = 0.478$ ,  $r = 0.453$ ), English ( $r = 0.398$ ,  $r = 0.600$ ), and Filipino ( $r = 0.513$ ,  $r = 0.608$ ) subjects. This denotes that when teachers have good practices in resourcing learning materials then students also have good performance in their class. Consequently, when teachers do not have a good practice in resourcing learning materials then students also do not have good performance in their class. These findings support the study of Tety (2016) that the quality of instructional materials have direct impact on students' performance be it sourced or improvised.

Table 6

*Significant Relationship between Teachers' Perception towards the DepEd LR Portal and Their Practices in Resourcing Teaching and Learning Materials*



	Perceptions towards DepEd LR Portal			
	District I		District II	
	r	Sig	R	Sig
Teaching and Learning Resourcing Practices	0.232**	0.009	0.300**	0.001

\*\* .Correlation is significant at the 0.01 level (2-tailed)

\* . Correlation is significant at the 0.05 level (2-tailed)

As reflected in table 6, teachers' perception towards the DepEd Learning Resource Portal has significant relationship with their teaching learning resourcing practices. This denotes that teachers strongly agreed that DepEd Learning Resource Portal delivers a great advantage to their teaching practices. DepEd Learning Resource Portal provides more illustration useable for teachers in developing their own contextualized materials. Aside from having a user-friendly interface, the portal does not require sophisticated hardware and high-speed internet connection. Generally, the teachers implied that available learning materials in the DEpEd Learning Resource Portal are beneficial to the currently handled subjects, especially the accessible teaching guides, and TLMs.

Table 7

*Significant Relationship between Teachers' Perception towards the non-DepEd Websites and Their Practices in Resourcing Teaching and Learning Materials*

	Perceptions towards non-DepEd Websites and other Sources			
	District I		District II	
	r	Sig	r	Sig
Teaching and Learning Resourcing Practices	0.028	0.753	0.092	0.327

\*\* .Correlation is significant at the 0.01 level (2-tailed)

\* . Correlation is significant at the 0.05 level (2-tailed)

As shown in table 7, the teachers' practices in resourcing learning materials has no significant relationship ( $r = 0.028$ ) with the teachers' perception towards the non-DepEd websites learning materials providers. The result revealed that teachers' perception towards other sources of TLMs has nothing to do with their current resourcing practices. For instance, teachers resort to looking for sources, other than the DepEd LR Portal when necessary or when the information quality guarantees user satisfaction (Tella, 2012).

## Summary and Findings

This research surveyed the teachers' practices and perceptions in resourcing teaching and learning materials. Primary data were collected through online questionnaires by a randomly selected 243 respondents. The purpose of this study was mainly to determine the teachers' practices and perceptions and their effect to the student's performance in their academic subjects.

It can be concluded that the perspective of the teachers towards the DepEd Learning Resource Portal and other non-DepEd initiated learning materials providers has a significant impact. These means that teachers who are not taking advantage of the available existing materials has no or limited resourcing skills. Based on that, the students' performance is much more affected. Lastly, most of the teachers need more professional enhancement and development training to improve their resourcing skills. This is the solution for them to handle insufficient provision for learning materials.

The results of this study indicated that learning material resourcing skill is an important factor that will affect teaching-learning processes which mainly has a significant effect to the students' performance in their academic subjects.

### **Recommendation Based on the Findings**

Based on the findings and conclusion of the study, the following are recommended:

1. Teachers need to participate in any professional development particularly in enhancing their resourcing skills.
2. Teachers should appreciate and make use of the learning materials available online and maximize their potentials in providing the best quality of work for the benefit of the students.
3. The Department of Education particularly the division office should address the training needs to make sure that the resourcing skills issues of teachers are properly given solutions.

### **Recommendations for Future Research**

Since this study only focused on the elementary school teachers, it is recommended that further studies be carried out on teachers from the secondary level to see whether there are any similarities in the findings. Moreover, this study only performed utilizing the quantitative methods; it is also recommended that further studies be carried out utilizing also the qualitative methods. In this manner, there could be further validation and triangulation of the data and of the findings.

To explore further the utilization, functionality, impact, and preservation of the DepEd provided learning materials and equipment particularly in Math, Science, and TVL, it would be best likewise to study on this area of concerns.

### **References**

- Chirwa, M. (2018). Access and use of internet in teaching and learning at two selected teachers' colleges in Tanzania. *International Journal of Education and Development using Information and Communication Technology*, Vol. 14, Issue 2, pp. 4-16.
- Department of Education. (2019, June 15). *APRIL 23, 2010 DO 35, S. 2010 – UPLOADING OF SAMPLE LEARNING RESOURCE MATERIALS THROUGH THE LEARNING RESOURCES MANAGEMENT AND DEVELOPMENT SYSTEM (LRMDS)*. Retrieved from Department of Education: <https://www.deped.gov.ph/2010/04/23/do-35-s-2010-uploading-of-sample-learning-resource-materials-through-the-learning-resources-management-and-development-system-lrmds/>

- Department of Education. (2019, June 15). *DepED Memo No. 082 S. 2017: Learning Resource Management and Development System Implementation in the Rationalized DepEd Structure*. Retrieved from Department of Education: <http://depedpines.com/2017/05/deped-memo-no-082-s-2017-learning-resource-management-and-development-system-implementation-in-the-rationalized-deped-structure/>
- Ghanney, R. (2008). *The Use of Instructional Materials in the Teaching and Learning of Environmental Studies in Primary Schools: A Case Study of Winneba*. Retrieved from International Journal of Educational Research: <https://www.ajol.info/index.php/ijer/article/view/41698>
- LRMDS, D. o. (2018). *Learning Resource Management and Development Manual*. DepED LRMDS Portal.
- Mapunda, H. S. (2004). *The Use of Internet by Secondary School Teachers: A Case of Twelve Secondary Schools*. Dissertation for Award of MSc Degree at University of Dar es Salaam, Tanzania.
- Mtebe, J. (2015). Learning Management System success: Increasing Learning Management System usage in higher education in sub-Saharan Africa. *International Journal of Education and Development using Information and Communication Technology*, Vol. 11, Issue 2, 51-64.
- Narasimhamurthi, N. (1995). A resource for teaching internet access. *DESIDOC Bulletin of Information Technology*.
- Susara, N. S. (2019, 10 June). *Investigative Reports*. Retrieved from Investigative Reporting Batch 2016: <https://investigativereportingsite.wordpress.com/2016/05/13/the-potential-and-problems-of-lrmds/>
- Tella, A. (2012). System-related factors that predict students' satisfaction with the Blackboard Learning System at the University of Botswana. *African Journal of Library, Archives and Information Science*, 22(1), 41.
- Tety, J. (2016). *ROLE OF INSTRUCTIONAL MATERIALS IN ACADEMIC PERFORMANCE IN COMMUNITY SECONDARY SCHOOLS IN ROMBO DISTRICT*. UNIVERSITY OF TANZANIA.