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Impact of Teacher Factor on the Utilization of LRMDS in the Division of Biliran

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Abstract
Development, storing, and sharing of learning materials have not been as fast and easy as in the digital era. This descriptive-correlational study examined the impact of teacher factor on their utilization of Learning Resource Management and Development System of the Department of Education. Simple random sampling technique determined the 1030 teacher-respondents from DepEd Biliran Division. A survey questionnaire was used to collect the data analyzed through descriptive statistics, Pearson r, and multiple regression analysis. Results indicated that most of the respondents fairly used the LRMDS portal. Their age, sex, and civil status have negative significant impact while highest educational attainment and years in teaching have positive significant effect on their LRMDS utilization. It is deduced that LRMDS utilization follows the professional growth and time-tested experiences of the teachers. Recommendation on the constant teacher empowerment on developing and digital dissemination of learning resources through the DepEd portal is forwarded.

Keywords: learning resource management, LRMDS utilization, teacher factor, knowledge sharing

Introduction

Accessibility, sufficiency, and relevance of teaching and learning resources in the classroom influence quality learning and teaching which have a very significant impact on learning and academic performance of students. The teacher uses instructional materials to make teaching and learning process motivating (Dahar, & Faize, 2011), and to develop higher learning abilities among the learners through self-teaching or guided learning (Gagne, 2005). But the dawn of the 20th century saw the fast surge of digital learning resources available in the internet. Technologies and online resources help students overcome their learning difficulties (Abbot, 2007), and improve their achievements and faculty performance (Jones et al. 2011). Moreover, student engagement with online resources and their overall academic result have been found to be positively correlated (Wong, 2013; Adeogun, 2001; Ahmed, & Khanam, 2014). With this growing trend, various educational systems worldwide adopted learning resources management systems for smooth dissemination and wider utilization of teaching and learning materials.

Learning through interactivity has become the new normal since the Department of Education has also capitalized on this platform. One such initiative is the Learning Resources Management and Development System (LRMDS) developed with the assistance of the Australian Government under the Strengthening Implementation of Visayas Education (STRIVE) program. In terms of LRMDS portal registration in Region VIII, the divisions of Southern Leyte, Tacloban City, Maasin City, and Baybay City almost got 100% participation rate (Learning Resource Portal/Dashboard, Admin Panel, RO8 s. 2018).

However, Susara (2016) discovered problems relative to using the DepEd LR portal, among which are: absence of clear format of learning resources, delays in accessing the portal, lack of knowledge in using the portal, unmotivated teachers in producing learning resources, system glitch, and poor internet access. With this, the researcher found the need to look into the profile of the teachers and their utilization of LRMDS and determine whether the former impacts the latter. Anchored on the theory of reasoned action (Fishbein, 1967) and Technology and Acceptance Model (Venkatesh, & Davis, 2000), this study anticipated

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applicability in decision-making as regards expanding the utilization of LRMDS and enhancing its features to make it more teacher-friendly.

Research Questions
This study determined the impact of teacher factor on the utilization of LRMDS in the Division of Biliran. Specifically, it answered the following:
1. What is the profile of the teacher-respondents with respect to:
   1.1 age and sex,
   1.2 civil status,
   1.3 highest educational attainment, and
   1.4 number of years in teaching?
2. What is the extent of utilization of LRMDS?
3. Is there a significant relationship between the teachers' profile and the utilization of LRMDS?
4. Does the teachers' profile predict the utilization of LRMDS?

Methodology
Predictive correlational research design (Froilan, & Adarayan-Morallos, 2020) was used to determine the impact of teacher factor on the utilization of LRMDS in the Division of Biliran as of 2019. The 1,030 teacher-respondents from within the division were sampled through simple random sampling. With their consent and assurance of anonymity and confidentiality, they responded to a well-validated survey instrument which covered the teacher factor and their level of utilization of LRMDS. The 5-Likert scale survey questionnaire on the portal utilization were rated as: *Always* for 5-7 times in a week, *Often* for 2-4 times in a week, *Sometimes* for only once a week, *Rarely* for only once in a month or year, and *Never* for not used at all. The gathered data were analyzed using descriptive statistics, Pearson r, and multiple regression analysis with level of significance at 5%. The analyses were run through the Statistical Package for Social Sciences (SPSS) v.24.

Results and Discussion
Teacher Factor
Most of the respondents were 35 – 49 years old (702 or 68.16%), female (714 or 69.32%), married (737 or 71.55%), acquired master's degree units (423 or 41.07%), and have been classroom teachers for 6 – 10 years (257 or 24.95%) (see Table 1). Therefore, the most of the respondents are at their old age, female, have their own families, pursued graduate studies, and acquired at least a decade of teaching experiences.

Table 1: Teacher Factor

Age	f	%
50 – 65	192	18.64
35 – 49	702	68.16
18 – 34	136	13.20
Total	**1030**	**100.00**
Sex		
Male	316	30.68
Female	714	69.32
Total	**1030**	**100.00**
Civil Status		
Single	245	23.79
Married	737	71.55
Widow/er	48	4.66
Total	**1030**	**100.00**

Educational Qualification		
Doctoral Degree Holder	46	4.47
CAR Holder in a Doctoral Program	26	2.52
Master's Degree with Units in PhD	16	1.55
Master's Degree Holder	134	13.01
CAR Holder in a Masteral Program	334	32.43
Bachelor's Degree with Masteral Units	423	41.07
Bachelor's Degree Holder	51	4.95
Total	**1030**	**100.00**
Number of Years in Teaching of the Classroom – Teacher Respondents	**F**	**%**
26 and above	137	13.30
21 – 25 years	148	14.37
16 – 20 years	92	8.93
11 – 15 years	241	23.40
6 – 10 years	257	24.95
1 – 5 years	155	15.05
Total	**1030**	**100.00**

Level of Utilization of LRMDS
Generally, the respondents reported that they fairly utilize the LRMDS (m = 2.18). Specifically, fair utilization in accessing the LRMDS website (m = 2.11), finding and selecting learning resources in the K – 12 ladder (m = 2.14), downloading of learning resources (m = 2.24), using the downloaded resources as teaching and learning materials and or references/supplementary materials (m = 2.27), and sharing the downloaded resources with others as teaching and learning materials and or references/supplementary materials (m = 2.13) was recorded (see Table 2). It can be deduced that the respondents did not maximize the use of learning resources from the LRMDS nor were willing to share their materials through the portal. This can be due to lack of necessary skills and attitude which make them shy away from using the DepEd Learning Resource Management System (Mapunda, 2004).

Table 2: Level of Utilization of LRMDS.

Indicators	Mean	Interpretation
1. Accessing LRMDS website (http://www.lrmds.deped.gov.ph/)	2.11	Fair utilization
2. Finding and selecting learning resources in the K – 12 Ladder	2.14	Fair utilization
3. Downloading Learning Resources	2.24	Fair utilization
4. Using the downloaded resources as teaching and learning materials and or references/supplementary materials	2.27	Fair utilization
5. Sharing the downloaded resources to others as teaching and learning materials and or references/supplementary materials	2.13	Fair utilization
GRAND MEAN	**2.18**	Fair utilization

Relationship between the Extent of Utilization of LRMDS and Teacher Factor
Pearson r was used to test the hypothesis that there is no significant relationship between teacher factor and utilization of LRMDS. Results indicate that age (r = -.279, p < .001), sex (r = -.229, p < .001), and civil status (r = -.229, p < .001) have significant negative relationship, while highest educational attainment (r = .105, p = .001) and number of years in teaching (r = -.136, p < .001) have statistical positive relationship with LRMDS utilization (see Table 3). These results indicate that there is less LRMDS utilization among the respondents when their age,

sex, and civil status are factored in. However, as they acquire much higher education and more years of teaching experience, their LRMDS utilization increases. In contrast, Sipahi (2020) concluded that teachers were less or even not willing to submit their own learning materials for evaluation, quality assurance, and sharing through the DepEd learning portals or even in other similar online platforms. This could be due to difficulties in resourcing sufficient choices of TLMs (Mapunda, 2004).

Table 3: Relationship between the Extent of Utilization of LRMDS and Teacher Factor

Profile		Utilization
Age	Pearson Correlation	-.279**
	Sig. (2-tailed)	.000
	Interpretation	Significant
Sex	Pearson Correlation	-.229**
	Sig. (2-tailed)	.000
	Interpretation	Significant
Civil Status	Pearson Correlation	-.290**
	Sig. (2-tailed)	.000
	Interpretation	Significant
Highest Educational Attainment	Pearson Correlation	.105**
	Sig. (2-tailed)	.001
	Interpretation	Significant
No. of years in teaching	Pearson Correlation	.136**
	Sig. (2-tailed)	.000
	Interpretation	Significant
*Correlation is significant at the .05 level (2-tailed)		
** Correlation is highly significant at the .01 level (2-tailed)		

Impact of Teacher Factor on LRMDS Utilization
Multiple regression analysis was conducted to determine the strength of the impact of the significantly related teacher factor on LRMDS utilization. Results showed that the teacher factor accounted for 42.80% of the increase in LRMDS utilization. This is confirmed with the significant ANOVA results (F (5,1024) = 46.018, $p <$ .001). Specifically, age (B = -.349, β = -.237, t = -6.647, $p <$ .001), sex (B = -.419, β = -.234, t = -7.507, $p <$ .001), and civil status (B = -.414, β = -.250, t = -7.479, $p <$ .001) of the respondents have statistical negative impact on their LRMDS utilization which means that these factors diminish the tendency of the respondents to use learning materials from the portal (see Table 4). On the other hand, their highest educational attainment (B = .111, β = .177, t = 6.057, $p <$ .001) and number of years in the service (B = .102, β = .202, t = 5.378, $p <$ .001) have positive correlation with their utilization of LRMDS materials. Coinciding with this, Chirwa (2018) posits that lack of ICT literacy skills diminishes teachers' ability to utilize learning resource management systems like LRMDS. Tella (2012) explains that teachers tend to look for other sources of learning materials only when they could not find what they need from the DepEd portal.

Table 4: Impact of Teacher Factor on LRMDS Utilization.

Teacher Factor		LRMDS Utilization
Age	B	-.349
	Std. Error	.053
	Beta	-.237
	t	-6.647
	P	.000*
Sex	B	-.419
	Std. Error	.056
	Beta	-.234
	t	-7.507
	p	.000*
Civil Status	B	-.414
	Std. Error	.055
	Beta	-.250
	t	-7.479
	p	.000*
Highest Educational Attainment	B	.111
	Std. Error	.018
	Beta	.177
	t	6.057
	p	.000*
No. of years in teaching	B	.102
	Std. Error	.019
	Beta	.202
	t	5.378
	p	.000*
	R	.428
	R²	.183
	F-value	46.018
	df	(5,1024)
	P	.000*
*Regression is significant at the .05 level (2-tailed)		
** Regression is highly significant at the .01 level (2-tailed)		

Conclusion
The Learning Resource Management and Development System of the Department of Education is a platform which when used exhaustively, has the potential to effect significant upward trend in the quality of education that public school teachers deliver to their students. But the teachers are at the forefront of this digital learning resource management strategy. It is an imperative that they acquire the knowledge and skills necessary to develop, store, and share quality learning resources through further studies or their rich teaching experiences acquired over a longer period of time. If the LRMDS is to be assessed, its success largely depends on the willingness of the teachers to utilize everything it can offer.

Recommendation
The researcher strongly forwards the conduct of seminars, trainings, and short courses that could empower teachers as regards their ability to develop, store, and share learning resources through the LRMDS portal. Sufficient funds, adequate technological facilities, and technical support must be put in place in regular basis so that the continuous progress of this set of skills grow into regularity.

References
1. Abbot, C. (2007). E – inclusion: Learning difficulties and digital technologies. Bristol: Futurelab.
2. Ahmed, O., & Khanam, M. (2014). Learning resources management strategies and academic achievement of secondary school students. *The International Journal of Indian Psychology*. 2. 108-115. 10.25215/0201.014.
3. 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*, 14(2), 4-16.

4. Dahar, M. A., & Faize, F. A. (2011). Effect of the availability and the use of instructional materials on academic performance of students in Punjab (Pakistan). *Middle Eastern Finance and Economics Journal*, 53, 110 -120.

5. Fishbein, M. (1967). A behavior theory approach to the relations between beliefs about an object and the attitude toward the object. In M. Fishbein (Ed.*), Readings in attitude theory and measurement*, 389-400. New York: John Wiley & Sons.

6. Gagne, R. M., Wager, W. W., Golas, K. C., & Keller, J. L. (2005). Principles of instructional design. Belmost, CA: Thompson.

7. Jones, J., Gaffney-Rhys, R., & Jones, E. (2011). Social network sites and student–lecturer communication: an academic voice. *Journal of Further and Higher Education*, 35(2), 201–219.

8. 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 Dares Salaam, Tanzania.

9. Sipahi, E. (2020). Teacher resourcing TLMs practices and perceptions: Its effects on students' performance. *Social Science Journal*, 6, 119-128. https://purkh.com/index.php/tosocial/article/view/726

10. Susara, N. S. (2019, 10 June). *Investigative Reports*. Retrieved from Investigative Reporting Batch 2016: https://investigativereportingsite.wordpress.com/2016/05/13/the-potential-andproblems-of-lrmds/

11. 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.

12. Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2):186-204.

13. Venkatesh, V., Morris, M. G., Davis, Gordon, B., Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*. 27 (3): 425–478.

14. Wong, L. (2013). Student engagement with online resources and its impact on learning outcomes. *Journal of Information Technology Education: Innovations in Practice*, 12. http://www.jite.informingscience.org/documents/Vol12/JITEv12IIPp129-146Wong%20FT116.pdf