Influence of Self-Efficacy and Perceived Valuableness in Research on the Research Engagement Among Librarians with Master’s Degree

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ABSTRACT
The study determined the influence of self-efficacy and perceived valuableness in research on the research engagement among librarians with Master’s Degree. A mixed-method research design was used. The instruments used in the study were adapted from Büyükoztürk, Brennan et al, and Serna. Participants consisted of 64 MLIS graduates from the Northern Mindanao and Caraga Region. Descriptive statistics and regression analysis were used to organize the data. Findings revealed that their efficacy in research was high; their perception of the valuableness of research was also high. Moreover, they were highly engaged in research behaviorally. Self-efficacy and their perception of the valuableness of research significantly influenced their behavioral research engagement. They admitted that their difficulties in research were related to data analysis and interpretation, review of related literature, introduction, conceptualization, theoretical framework, and research methods. In conclusion, self-efficacy and perceived valuableness in research in relation to research engagement will remain vital in today's librarianship due to the increased demand for services, developments, innovations, and technological advances.

KEYWORDS
self-efficacy; valuableness in research engagement; research engagement.

INTRODUCTION
Research has a great impact on librarians’ role in the society nowadays. This role has integrally evolved in providing research services to faculty, students, and staff in both public and private sectors. Research is a creative work undertaken on a systematic basis to devise new applications and to build knowledge where people can innovate and develop new technology that makes life fuller. Research has influenced today’s libraries to investigate changes in their provision of services to satisfy the needs of the clientele. Along with this need to actively participate in research, librarians are expected to facilitate and support research. Indeed, librarians are expected to engage in research to contribute to the practice of excellence in the service of the organization they serve.

Consequently, master’s programs in Library and Information Studies (LIS) in the Philippines underscore the importance of research in LIS education and the practice of the profession. This is important because engaging in research as a practice will develop the librarian’s knowledge of the research process and improve critical thinking skills.

Despite the significance of research engagement in the profession, Filipino librarians often lack a research-oriented mindset due to their numerous responsibilities in the library (Booth, 2008). Additionally, they feel underprepared for research tasks because of
insufficient education in research skills and the demands of an already heavy workload (Berg, Jacobs, & Cornwall, 2013). Furthermore, Filipino librarians face various challenges and dilemmas in conducting research, including insufficient time to complete projects, unfamiliarity with the research process, lack of support (both emotional and financial), limited access to research resources, lack of confidence, discouraging jargon, inadequate education in research methods, and low motivation (Kennedy, 2018). These challenges affect their ability and competitiveness to collaborate in research studies and shape their perceptions of research based on their interests, knowledge, and attitudes. Therefore, evidence-based librarianship involves encouraging librarians to engage in research, with institutional expectations and support, educational training and preparation, and confidence being key indicators likely to enhance their research productivity (Fenske & Dalrymple, 1992; Fennewald, 2008; Kennedy & Brancolini, 2012).

In addition, with the rapid improvement of technology and increased demand for services, developments, and innovations, libraries are also expected to level up. Thus, this study was conducted to determine the influence of self-efficacy and perceived valuableness in research on the participants’ behavioral research engagement.

**LITERATURE REVIEW**

This study posits that librarians' self-efficacy in research and their perceived value of research significantly impact their behavioral engagement in research activities. Their confidence and perceived importance of engaging in research processes enhance their ability to manage research tasks and tackle challenging library activities. This is based on Bandura’s Self-Efficacy of Social Cognitive Theory (1977), Ajzen's Theory of Planned Behavior (1985), and Behavioral Engagement by Fredricks, J A., Blumenfeld, P., & Paris, A. (2004) Self-efficacy is reflected in librarians' confidence in conducting research. Jungert, T., Koestner, R. F., Houlfort, N., & Schattke, K. (2013) highlighted that self-efficacy is crucial for job satisfaction and success, as individuals build self-efficacy through accomplishing difficult tasks (Türkoğlu, M E., Cansoy, R., Parlar, H., 2017). In the Philippines, Apolinario and Eclevia (2014) found that librarians exhibit high confidence in performing research tasks, particularly in developing data collection tools and measuring variables of interest. Therefore, enhancing their skills and efficacy is essential for supporting and assisting users with their research needs through quality information services. Ajzen's Theory of Planned Behavior (1985) suggests that the intention to perform a behavior is a key predictor of action. In this context, librarians' perception of the value of research drives their intention to engage in it, with stronger intentions increasing the likelihood of performing and valuing the behavior. Fredricks, J A., Blumenfeld, P., & Paris, A. (2004) Behavioral Engagement theory underscores that librarians' active involvement in research boosts their abilities and capacities to meet institutional needs and user satisfaction. Lessick et al (2016) emphasized that librarians' research engagement enhances their expertise and skills, enabling them to better assist and educate patrons on utilizing various resources effectively for their research projects.

**RESEARCH METHODS**

**Research Design**

This study utilized the mixed method (quantitative and qualitative) with a Convergent Design (Creswell, 2012) to collect and analyze the two types of data concurrently. The mixed-method research design is a procedure for collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies to provide a better
understanding of research problems. (Halcomb & Hickman, 2015) The mixed method guided the present study to investigate the librarians’ self-efficacy, perceived valuableness in research, and their level of behavioral research engagement. Qualitative data pertaining to librarians’ suggestions to improve research engagement and the areas to strengthen their research writing was also cited to reinforce the findings of the study.

**Research Instruments**

The measures used in this study were adapted from various sources. To measure self-efficacy in research, the Research Self-efficacy Scale of Buyukozturk et al (2008) was used as a reference. The second part, which measured the perceived value of research, was based on an instrument entitled the SEER (Seeking, Engaging with, and Evaluating Research) test-retest reliability Scale. The third part measured the behavioral research engagement adopted from the Research questionnaire on the Librarians’ Research Engagement thesis study of Serna, T. (2018); slight modifications were made to suit the context of the participants in the current study.

Scoring Procedure. This study used the following scoring procedures to facilitate the analysis and interpretation of the data related to self-efficacy in research, perceived valuableness of research, and behavioral research engagement.

**Data Gathering Procedure and Ethical Considerations**

The researcher checked the yearbook and looked for the names of the theses available in the Learning Commons to obtain the data for the number of MLIS graduates, specifically from Northern Mindanao and the Caraga Region. After the information was gathered, the researcher started to communicate with the librarians through online and text messages to ask their permission to conduct the online survey formally. In the questionnaire, informed consent was secured by the researcher from the participants, ensuring that the data gathered were kept with the utmost confidentiality and would not in any way encroach upon the rights and dignity of the participants, nor would it cause legal and financial harm to the institution. After the confirmation of the said request, the researcher sent the link from the created Google forms via email and messenger.

The researcher also went to some universities and colleges in the CARAGA region to formally ask permission from the Chief/Head Librarian to float questionnaires to the librarians who have master’s degrees. Their informed consent was also sought, and they were assured that their responses would be treated with utmost confidentiality. After collecting their completed questionnaire, these were then quickly reviewed to ensure that all questions were answered. The researcher was able to complete the data gathering within three weeks. After this, all the data were then sorted, tallied, tabulated, and statistically run using the SPSS software.

**Statistical Treatment of Data**

This study made use of descriptive statistics for data in problems 1, 2, and 3 to describe, analyze, and interpret the collected data regarding the participants’ self-efficacy and perceived valuableness in research and their behavioral research engagement.

Meanwhile, data in problem 4 utilized regression analysis to determine if the librarians’ self-efficacy and their perception of valuableness in research influence their behavioral research engagement. Lastly, problems 5 and 6 used open-ended questions to solicit opinions from the participants to enhance further the self-efficacy in research and behavioral research engagement. The data were organized, and themes were formulated.
RESULTS AND DISCUSSION

Table 1. Frequency, Percentage, and Mean Distribution of the Participants’ Level of Self-Efficacy in Research

<table>
<thead>
<tr>
<th>Range</th>
<th>Interpretation</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.51 – 5.00</td>
<td>Very High</td>
<td>18</td>
<td>28.13</td>
</tr>
<tr>
<td>3.51 – 4.50</td>
<td>High</td>
<td>30</td>
<td>46.88</td>
</tr>
<tr>
<td>2.51 – 3.50</td>
<td>Moderate</td>
<td>13</td>
<td>20.31</td>
</tr>
<tr>
<td>1.51 – 2.50</td>
<td>Low</td>
<td>2</td>
<td>3.13</td>
</tr>
<tr>
<td>1.00 – 1.50</td>
<td>Very Low</td>
<td>1</td>
<td>1.56</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>64</td>
<td>100</td>
</tr>
</tbody>
</table>

Overall Mean 3.83
Interpretation High
SD 0.68

Table 1 presents the frequency, percentage, and mean distribution of the participant's level of self-efficacy in research. The data show that the participants had a high level of efficacy in research, as clearly shown in the overall mean of 3.83.

Data show that the participants have high confidence in their ability and knowledge to conduct research. This finding conforms to the findings of Eclevia (2014), who accentuated those Filipino librarians demonstrated a high level of confidence in research, especially in preparing data collection tools, e.g., questionnaires, interview questions, etc., collecting data, and measuring the variables of interest.

Table 2. Frequency, Percentage, and Mean Distribution of Participants’ Perceived Valuableness of Research

<table>
<thead>
<tr>
<th>Range</th>
<th>Interpretation</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.51 – 5.00</td>
<td>Very High Extent</td>
<td>37</td>
<td>57.81</td>
</tr>
<tr>
<td>3.51 – 4.50</td>
<td>High Extent</td>
<td>21</td>
<td>32.81</td>
</tr>
<tr>
<td>2.51 – 3.50</td>
<td>Moderate Extent</td>
<td>5</td>
<td>7.81</td>
</tr>
<tr>
<td>1.51 – 2.50</td>
<td>Low Extent</td>
<td>1</td>
<td>1.56</td>
</tr>
<tr>
<td>1.00 – 1.50</td>
<td>Very Low Extent</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>64</td>
<td>100</td>
</tr>
</tbody>
</table>

Overall Mean 4.29
Interpretation High Extent
SD 0.62

Table 2 presents the frequency, percentage, and mean distribution of the participants’ perceived valuableness of research. The data show that the overall mean is 4.29, which is interpreted as a high extent.

This finding implies that the participants consider the research as highly useful or essential because it can further enhance their capabilities in the profession, upgrade their skills and competence in giving the right services and information resources, as well as guide the learners effectively and efficiently in the utilization of such resources, and most importantly for the libraries’ upkeep of their systems and operations.

Table 3. Frequency, Percentage, and Mean Distribution of Participants’ Level of Behavioral Research Engagement

<table>
<thead>
<tr>
<th>Range</th>
<th>Interpretation</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.51 – 5.00</td>
<td>Very High Extent</td>
<td>18</td>
<td>28.13</td>
</tr>
<tr>
<td>3.51 – 4.50</td>
<td>High Extent</td>
<td>24</td>
<td>37.5</td>
</tr>
</tbody>
</table>

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Table 3 presents the frequency, percentage, and mean distribution of participants' level of behavioral research engagement. Data reveal that their behavioral research engagement is high as indicated by the overall mean of 3.76. This shows that the librarians are into research as it greatly enhances their expertise, skills, and capabilities. Thus, they can provide more assistance to patrons and can practically educate them on the use of the various information resources that suit their research project.

Moreover, this finding implies that librarians are behaviorally capable of interpreting and analyzing practical concepts and topics being investigated in the study. Similarly, Apolinario & Eclevia (2014) found that librarians have an average level of confidence when designing the conceptual and theoretical framework and analyzing the collected data using statistics.

Table 4 shows the regression analysis on the influence of self-efficacy and perceived valuableness of research on the participants' behavioral research engagement. Results reveal that the whole model is significant (F=11.082, p=.000). Therefore, the null hypothesis can be rejected. There is sufficient evidence showing that self-efficacy and valuableness in research were predicted with the participants' behavioral research engagement.

**Table 4. Result of Regression Analysis on the Participants’ Self-efficacy, Perceived Valuableness in Research, and their Behavioral Research Engagement**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.869</td>
<td>.654</td>
<td></td>
<td>1.330</td>
</tr>
<tr>
<td>1</td>
<td>SELF-EFFICACY</td>
<td>.428</td>
<td>.176</td>
<td>.349</td>
</tr>
<tr>
<td></td>
<td>VALUABLENESS</td>
<td>.291</td>
<td>.193</td>
<td>.217</td>
</tr>
<tr>
<td>Model Summary</td>
<td>R = .516</td>
<td>Adjusted R² = .242</td>
<td>F = 11.082**</td>
<td>p = .000</td>
</tr>
</tbody>
</table>

*Significant at .05 level (two-tailed)  
**Significant at .01 level (two-tailed)  

In what area/s of research writing do the participants need to strengthen?

Based on the responses of the participants on the areas of research writing that they need to strengthen were (1) Data analysis and interpretation; (2) Review of related literature; (3) Introduction, the formality of the title and statement of the problem; (4) theoretical framework, and (5) research methodology. It shows that the difficulties articulated by the participants were centered on formulating the analysis and interpretation of the data, a coherent review of related literature and studies, the provision of a sound framework, the conceptualization of research, and the methods to use.

What suggestions can the participants give to improve their research engagement of librarians?

Suggestions were identified by the sixty-four (64) participants of the study to improve the research engagement of the librarians. With this, the suggestions segmented by the
participants focused on their professional development, reading, keeping abreast of the
trends and issues in the profession, collaboration, mentoring, and lastly, the importance of
time management and focus.

CONCLUSION
The assumption that librarians’ self-efficacy and valuableness in research significantly
predict librarians’ behavioral engagement in research was considered in this study. This
positive and high interest in the research engagement would give librarians the ability to
carry out research activities and stay attuned to the culture of research despite its
complexities to be encountered along the way. As researchers (Rin et al., 2011) corroborate,
librarians have a high interest in engaging in research because it develops and increases their
research skills, credibility, and job performance to promote reliable and effective
information resources and services to the community they serve. Moreover, their self-
efficacy in relation to research engagement consolidated as high confidence in their ability
and knowledge to conduct research. In contrast to their perceived valuableness to research
engagement, librarians considered research as highly useful or essential because it can
further enhance their capabilities in the profession, upgrade their skills, and so on.

However, they have accentuated their difficulty in analyzing and interpreting data,
reviewing the literature and studies, and drafting their conceptual framework, among others.
To improve their skills, they suggested participating in seminars and workshops, keeping
abreast with trends and issues in research and in their discipline, collaborating, and
mentoring, among others. Self-efficacy and perceived valuableness in research in relation to
research engagement will remain vital in today's librarianship due to the increasing demand
for services, developments, innovations, and technology advances.

RECOMMENDATIONS
Based on the findings and conclusion derived from the study, the following
recommendations are hereby offered:

1. The Professional Regulatory Board for Librarians (PRBFL) may establish a continuous
   professional development program, specifically in strengthening the research writing
   skills among librarians on the assessment of the study findings, data interpretation,
   formulating conclusions and suggestions, identifying acceptable hypotheses for a
   conceptual framework, and reviewing relevant literature. In addition, collaboration is
   also important among librarians that can be replicated nationally, especially in the other
   provinces. Thus, such findings may be used by workshops and trainings to improve their
   research capacity and engagement.

2. That the Library Administrator may continue to recognize the importance of research
   and publication for advancement and development and to continue supporting the
   librarians in terms of enhancing their capabilities through attending seminars, training,
   etc.

3. That LIS Faculty may promote new strategies and encourage their students to enhance
   their research skills and capabilities as well as provide more insights and relevant
   learning interventions, particularly on research engagement.

4. Librarians may be encouraged to invest more in learning and knowledge to engage in
   research and thus deliver quality services for the benefit of the users.

5. That Future Researchers may consider exploring factors apart from the other variables
   that will boost librarians' commitment to research and encourage them to do so. As a
   result, the status of LIS researchers will elevate in the country.
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