Development of the Love for Writing and Publishing Journal (LWPJ) Module for Higher Education

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Abstract. This paper details the development of the Love for Writing and Publishing Journal (LWPJ) Module, which encourages writing in a scientific and simple way through the approach of the Self-Determination Theory, Social Constructivism Theory, and Successful Intelligence Theory. The content of the module was constructed through information obtained from a literature review and interviews with six experts who have produced many high-impact journal articles. The developed module was used in a two-day online training course, with participant monitoring before, during, and after the course through WhatsApp. This study used a mixed methods approach of design and development research. Using this method, the research was carried out in three phases. The first phase involved needs analysis; the second phase included design and development; and the third phase involved evaluation of the module. The research led to the successful development of the LWPJ Module by fostering a love for writing and publication of scholarly writing among course participants. The module benefits postgraduate students and academics at the higher education level by ensuring that scholarly articles are successfully completed and submitted for publication. This study has implications on the development of a culture of excellence and a culture of love for scholarly writing and publication among postgraduate students and academics from various walks of life at school and university levels.

Keywords: academic writing; higher education; love; module development; publication; journal

1. Introduction
Journal article publication has become a prerequisite for the graduation of postgraduate students at most faculties of institutions of higher learning, as well as a mandatory condition for the promotion of all lecturers. Since article

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publication is one of the important research outcomes for universities and colleges, this has led most faculties to require their postgraduate students to publish articles in journals (Universiti Kebangsaan Malaysia, 2021). Some university faculties have made various efforts trying to promote academic writing by holding seminars and conferences on and off campus. This has been done in addition to creating compulsory courses for students in relation to journal article writing, such as research methodology and academic writing courses.

There is a need to focus on article writing and publication to ensure that researchers are able to report research results through writing and highlighting their research to students and other academics. Article writing can help adding to the number of reference materials or sources. In addition, it can increase the integrity of article writing and publication by curbing plagiarism, an offense that should not be committed by researchers. Nabee et al. (2020) explained that educators are concerned about plagiarism activities in higher education. As a result, an objective has been set by academia to identify the causes behind plagiarism activities in order to put a stop to them. Furthermore, Nabee et al. (2020) explained that awareness of plagiarism and understanding of the institution’s plagiarism policy were two predictors of plagiarism practices among university students.

Understanding plagiarism involves various factors. One has to know what plagiarism is and be aware that copying without correct recognition of the source is unacceptable. In addition, one has to be able to properly cite, and know how to use plagiarism detection software. Students are also required to be aware of university-wide academic plagiarism rules and punishments. Nabee et al. (2020) also contended that awareness of plagiarism and the regulations and punishments that will be imposed if found guilty of committing it will have a favorable influence on plagiarism practices. This means that university students will be obliged to be more aware of their writing abilities and will be less inclined to engage in academic dishonesty. However, putting an end to plagiarism has ramifications for university administrators. Not only educators but even more so managers or administrators will have to work to increase university students’ level of skill to where they do not plagiarize. Workshops held for article writing and publication can train participants to continue writing and to understand the conditions required for the publication of articles in journals which are systematic and characterized by scientific concepts.

In an effort to build modules and provide appropriate training for researchers comprising graduate students and academics, several challenges in article writing and publication have been identified. These include emotional instability (Janke et al., 2020; Zahrin et al., 2020), financial and time constraints (Brutus et al., 2013), lack of experience (Alharbi, 2019), rejection from article publishers (Jha, 2014), and individual attitudes (Pineteh, 2014).

Emotional instability was found to be one of the major hindrances and challenges faced by young academics in article publication. They are anxious that their writing will not conform to standards, a feeling which drags on throughout the
publication process, because more time and effort are required for editing. The tedious editing process, which involves re-reading, repetitive writing, multiple formatting, and other steps in journal article writing, causes emotional instability among young academics. Kara (2013) asserted that academic research involves a lot of emotions, and that emotions are inevitable in research work. Kara (2013) suggested that writers should learn to channel emotions in their academic writing in order to better present their research to readers. Sword et al. (2018) pointed out that academics are also often frustrated in article publication because they often face rejection from reputable journals. This frustration also contributes to a sense of despair and failure to rise in rank and strengthen scholarship on a global scale.

Having identified the challenges and gaps in previous studies, this study aims to improve the skills that postgraduate students and academics in higher education institutions (HEIs) need to possess for article writing and publication. Among these skills are researching, reading scientific materials, managing information, and writing scientific reports in the form of journal articles. The skills that will be improved through the use of the Love for Writing and Publishing Journal (LWJP) Module are expected to help academics and postgraduate students achieve excellence in their careers and studies.

2. Theory-Based Design of Teaching and Learning Materials

Theories aim to define and explain an event or phenomenon (Silverman, 2017). Three theories were used in the development of the LWJP Module, namely Self-Determination Theory (SDT), Social Constructivism Theory, and Successful Intelligence Theory. These theories were chosen because they meet the criteria requiring course participants to be able to make decisions and take actions for self-success, while leveraging a conducive and encouraging environment in producing quality journal articles.

2.1 Self-Determination Theory

SDT is applied to activities that are engaging, challenging, or fun, and that require no experience or extrinsic reason to be performed (Deci & Ryan, 2004). SDT is a theory that connects personality, human motivation, and optimal performance. It claims that there are two sorts of motivation, intrinsic and extrinsic, and that both are strong influences in determining who we are and how we act (Deci & Ryan, 1985). This theory evolved from research on motivation by Edward Deci and Richard Ryan in the 1970s and 1980s.

SDT is in line with the teaching of Islam which encourages the individual to look upon themselves in any aspect of life. Though the individual can determine their well-being, they are prone to look upon themselves for more understanding of their undertakings. The Qur’an mentions in chapter az-Dhariyat verse 21: “And in yourself. Then will you not see” (Dar Qiraat, 2016). This verse highlights the importance of understanding one’s own personality, motivation, and functioning. The verse calls upon readers to reflect on themselves and to determine the best options for their life.

In the context of journal article writing and publication, the internal motivation of course participants is expected to be a catalyst for their success in completing
a given assignment within a set period of time. The expected internal motivation is a feeling of love for the activities that make the efforts of writing and publishing journal articles successful. On the other hand, external motivation comes from the facilitators and other participants who exhibit their progress during the training or course. The most effective external motivation is when course participants manage to submit to a journal publisher, regardless of whether it is the Malaysian Citation Index Database (MyCite), Excellence in Research for Australia (Era), Scopus (Elsevier’s abstract and citation database), or Web of Science (WoS) journals. It is more exciting, however, when participants are able to submit their articles to WoS journals, as the meta data procedure is more complicated and takes longer when compared to MyCite index journals.

2.2 Social Constructivism Theory
According to Yildirim (2014), constructivism is a contemporary theoretical approach that greatly influences educational systems around the world. It is a student-centered educational strategy that uses the link between previous experiences and new knowledge to give the material presented meaning and structure. According to Sivan (2010), motivation in the classroom is based on theories that focus on the intrapsychological properties of the individual or their cognitive and/or affective functions. In contrast to the individualistic perspective, social constructivism features motivations derived from external influences such as training and a conducive environment.

In the context of this study, Social Constructivism Theory features a culture of academic writing and publication that involves more than only journal articles. In addition, extensive exposure is given to the production of research proposals, abstract layouts, conference papers, and early exposure, helping graduate students prepare their theses and journal articles. A culture based on a love for knowledge and a love to disseminate knowledge for the benefit of the world’s population makes this study highly impactful in building a social environment that builds and promotes academic excellence.

2.3 Successful Intelligence Theory
According to Sternberg’s Theory of Successful Intelligence, intelligence is divided into three functioning components which complement each other: analytical, practical, and creative intelligence. The higher order mental processes involved in problem-solving are referred to as analytical or extraction intelligence. In the process of analyzing, assessing, critiquing, reasoning, and evaluating, analytical aptitude is necessary. People with strong analytical intelligence are known to do well in standardized academic aptitude tests (Sternberg & Rainbow Project Collaborators, 2006).

In the context of this study, this theory is used to strengthen motivation to achieve success in the course. Considering the time constraints of academic and postgraduate students, the success of completing article writing and the opportunity to submit it to a journal publisher is very meaningful and exciting. The analytical, practical, and creative aspects of this theory play a role in the thinking and actions of course participants to achieve the envisioned success.

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3. Theoretical Framework of The Study

We used the above three theories as a platform to produce the LWPJ Module. The theoretical framework used in the study is depicted in Figure 1. This learning theory became the framework and acted as a basis in the design and construction of the LWPJ Module.

The three theories were used as a basis in the development of the LWPJ Module. We selected SDT based on the research problems that have been identified. Since this research aimed to develop the LWJP Module, Social Constructivism Theory and Successful Intelligence Theory were identified as backup theories in building the module. These theories are appropriate because they contribute to motivation for article writing and publication, critical thinking, use of past experience, as well as a determination to achieve success through intelligence in analysis, practicality, and creativity.

4. Methodology

The content of the LWPJ Module was determined by collecting interview data and visiting the library for information from books, theses, journal articles, reports, and relevant policies. This method was appropriate for gathering adequate data to accurately justify the research, as well as for the scope of the research, which was to develop the module (Mahmud et al., 2017). The different phases and steps of the module construction process are described in Table 1. The construction process was based on the first phase of this research.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Steps</th>
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<tr>
<td>Goal construction</td>
<td>In general, module construction is intended as an intervention for postgraduate students and academics. In the goal-formulating process, the results of the needs analysis were used to identify the theme of the needs of the module or activities in the module. For example, the results of the needs analysis showed that the module requires integration of theory and practice. Therefore, the</td>
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goals were formulated in line with the theme of how to combine theory and practice and being able to explain the content of the activities.

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<tr>
<th>Identifying theories, concepts, targets, and duration of the course/workshop</th>
<th>This phase included identifying relevant theories to explain the variables measured in accordance with the problems faced by postgraduate students and academics. In addition, the concepts used in the construction of the LWPJ Module were identified as user simplicity and effective mentoring through continuous monitoring of the participants’ WhatsApp group. The targets were postgraduate students and academics, in a two-day online course/workshop.</th>
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<tbody>
<tr>
<td>Requisite study</td>
<td>To determine the module construction requirements, a requisite study was undertaken. The requisite study was carried out in this study using two methods: document analysis and surveys. The findings of the requisite study have been discussed under the research problems of the study.</td>
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<tr>
<td>Setting objectives</td>
<td>Two types of objectives, namely the general and particular objectives, were determined in the beginning. The general objectives explain the overall objectives that must be met throughout module implementation. The specific objectives are the respective aims of each submodule or activity executed.</td>
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<tr>
<td>Content selection</td>
<td>Content was selected and constructed based on theory, because each activity is able to explain the variables, which are falling in love (with journals), writing, and publishing journal articles. Furthermore, the content chosen has an impact on the goals of each activity. The appropriate content was chosen based on the relevant domain.</td>
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<tr>
<td>Strategy selection</td>
<td>The facilitator’s degree of expertise, the participants’ suitability, the site or location where the course will be presented, and the appropriateness of the meeting time were all included into the strategy selection. All these criteria were taken into account when determining the module’s seamless deployment and, as a result, its efficacy.</td>
</tr>
<tr>
<td>Logistics selection</td>
<td>The materials to be utilized in each activity, the suitability of the venue or site of the course, the facilitator’s training, and participant safety are all factors to consider while planning logistics. We compiled a checklist that facilitators will have to complete to confirm that the logistical needs are adequate and fulfil the standards that have been established for presentation of the module.</td>
</tr>
<tr>
<td>Media selection</td>
<td>The module must be presented based on the needs of the activities. This may include a combination of several methods of delivery, including through the Microsoft Teams platform. Furthermore, educational tools such as the internet, video clips, WhatsApp, and PowerPoint can be used to encourage participants to actively participate in each activity.</td>
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<tr>
<td>Consolidation of module drafts</td>
<td>The completed module draft for each activity was collected and organized in a systematic manner in the second phase of this study. The creation phase of the draft module has been completed, which means that the module can proceed to the next step, in which it will be evaluated by the experts.</td>
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</table>
4.1 Design Phase
The LWPJ Module was designed based on the needs analysis and research problem discussed in this study. The next step was to select and organize the content, select effective technology for the activities, and select resources that suit the needs of the students. The selection of theories and models also guides lecturers and students to consider the findings from the analysis phase as input for the design phase. In the previous phase, the findings of the student questionnaire were enriched with lecturer questionnaires along with interviews with lecturers and experts. Figure 2 shows the module preparation framework at the design phase.

Figure 2: Design phase of the LWPJ Module

Figure 2 shows the design framework of the LWPJ Module preparation. The entire division of this module is illustrated in detail in Figure 3. There are two domains in the production of this module, namely love motivation and skills. There are four basic skills for researchers, namely researching, reading, writing, and publishing. The two main domains of the module are broken down into three submodules, namely Falling in Love, Writing, and Publishing. The submodules become the main topics or chapters in the LWPJ Module. The Falling in Love submodule is the first section that will discuss the love for writing and serve as introduction to journal articles. The second part is the Writing submodule, which will focus on writing, writing a draft, journal components, and the characteristics of a quality journal article. When users are exposed to this information, they will be able to understand the basic concepts of a journal article. The last section is the Publishing submodule, which will discuss potential journals in which to publish articles, the process of submitting to publishers, and the costs that are to be incurred to publish articles. These three submodules are broken down into five activities each. This is done so that each theory is put into practice so that users can better understand the process of article writing and publication.

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Figure Error! No text of specified style in document.: **LWPJ Module preparation design framework**

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4.2 Development Phase
The development process begins with the determination of equipment for writing, which includes the formation and selection of appropriate teaching materials according to the content of learning through a two-day course. The development phase also considers the formation of more efficient and appropriate teaching strategies. Once the software and equipment have been determined, the module authoring activities are done in detail based on the information from the design phase. Module development is divided into three parts, namely introduction, writing, and publication. Once the LWPJ Module is ready to be developed, the draft module will be piloted in a two-day course.

The development phase involves creating intuitive pathways (intuitive awareness), identifying learning objectives, and creating teaching methods, materials, and interactive communication methods. In addition, it involves creating support materials for students to foster a love to write and publish journal modules according to predefined design specifications in module form. At the end of the module development, module testing is conducted by a four-person panel of expert evaluators. The purpose of this testing is to verify whether developed modules meet the specified specifications, with the module improvement process being based on the results of expert feedback (Harun et al., 2003).

The panel of expert evaluators was given a draft of the modules that had been produced along with an expert validation checklist detailed according to the subsections of the instrument based on their respective areas of expertise. Expert confirmation will be given through feedback in the checklist for the LWPJ Module testing process. In the context of module content, academic writing experts or experts in research methodology were asked to provide feedback based on the content of each LWPJ Module unit. Multimedia experts provided feedback on slides, audio, and graphics. Instructional design experts responded to the design of the LWPJ Module with self-directed learning methods and problem-based learning methods to determine whether the module met these criteria. All written responses were recorded and analyzed for the purposes of this study.

In addition, module testing was also conducted among postgraduate students and academics during the pilot study. The results of the checklist feedback from the experts and participants of the pilot study were recorded and analyzed according to the theme of the term code that had been determined for the purpose of improving the LWPJ Module. A pilot study on the use of the module was conducted in a two-day writing workshop. The participants of this pilot study met the same criteria as those of the actual study. The pilot study was conducted to test the module and identify any content problems or procedures for the use of LWPJ modules. The problems identified will be addressed and corrected until there are no more problems during the actual study.

4.3 Results of Module Testing
Based on the two-day writing workshop using the module, we found a significant difference in the perception of writing skills and publication of journal articles before and after use of the LWPJ Module ($t = -6.42, p = 0, p < .01$) for the workshop
participants. The findings showed that the post-study results (mean = 4.50, SP = 0.682) for the perception score of writing and publishing journal article skills using the module were higher than those of the pre-study (mean = 3.07, SP = 1.081). Reflection of participants’ feedback is very important to evaluate the success of the LWPJ Module through the workshop. The qualitative data collected through WhatsApp showed that participants had success in writing through the submission of their articles to publishing journals. Of the 30 participants, 15 (50%) successfully submitted their scholarly writing to publishers after a few days of completing the course. This showed that the internal awareness experienced by participants made them more motivated to produce journal articles. The percentage of participants who admitted their love for writing and publishing articles also increased compared to before completing the LWPJ Module. Quantitative data collected through Google Forms also showed that the postgraduate students in this study’s level of understanding and application in writing and publishing articles increased when compared to before they had completed the LWPJ Module in the two-day course.

4.4 Participant Selection Procedure
The research population refers to the total number of individuals found in a study area. According to Wiersma (2000), in social science studies, researchers need to take the population into account when determining the size of the sample that needs to be selected to represent the population under study. Neuman (2000) argued that a study sample taken at random allows the researcher to make an accurate generalization with respect to a selected population. In this study, the study population consisted of postgraduate students of Universiti Kebangsaan Malaysia and academics (aged 25 to 50 years) in 2020.

A postgraduate student is an individual who pursues education for a higher degree. This includes individuals learning and studying for an academic or professional degree, certificate, or diploma, or other qualification that requires a first or bachelor’s degree and is usually considered part of higher education. At the postgraduate level, students should prepare their respective research topics while they enroll and get good information in their proposed field of research. Furthermore, they should also have basic presentation skills, be knowledgeable about research ethics, and be dedicated to and accountable for their own research (Krish et al., 2017). Specifically, for this study, the postgraduate students involved were pursuing studies at the master’s, doctor of philosophy, and doctor of higher education levels at Universiti Kebangsaan Malaysia in 2020.

Academic is an honorary title given to full members of academies who have a significant impact on national scientific life. Academics have a strong influence in the organization of the educational environment, including connections, structure, communication, and atmosphere (Göksoy, 2018). The career success of an academic can be measured through reputation, recognition, promotion, and research productivity (Said & Rasdi, 2012). The academics involved in this study were university lecturers and educators serving at Universiti Kebangsaan Malaysia as well as other institutions of higher learning.
4.4.1 Characteristics of the needs analysis phase participants
For the needs analysis phase, ten postgraduate students of the 2019 cohort and ten academics were selected for the purpose of analysis. They were selected using purposive sampling, because they were expected to provide comprehensive feedback on the needs of the study (Creswell & Creswell, 2017). All the study participants met the criteria that had been set, which is to possess high levels of expertise and knowledge, qualifications exceeding five years, and agreement to being a participant for a long period. The sample size was selected based on the views of Fraenkel et al. (2012), that a qualitative study requires between 1 and 20 participants. However, Spencer and Spencer (1993) discovered that as few as seven research participants are sufficient to gather useful qualitative data. Meanwhile, Patton (2002) argued that using a small number of participants helps researchers acquire information in more depth. Our determination of the sample size is also based on the recommendations of researchers in the field of analysis and system design. In this regard, Satzinger et al. (2007) argued that a small number of participants is sufficient if the design objectives are clear and limited.

4.4.2 Characteristics of the design and development phase participants
The results of the analysis and feedback in the needs analysis phase were recorded and used as a guide in the module design process. The design phase is an important phase because the selection of study participants influences the quality of the study. In the development phase, four expert evaluators acted as a panel to review and validate the module in terms of content, illustrations, information organization, and graphic content. According to Hsu and Sandford (2007), a panel of research specialists should be chosen among individuals who have experience in the topic under investigation, are capable and eager to engage in research, and have communication skills. The usability test of the module was conducted during the testing phase on 15 postgraduate students and 15 academics during a pilot study conducted on the two-day journal article writing course.

4.4.3 Characteristics of the evaluation phase participants
For the evaluation phase, 20 postgraduate students and 20 academics were involved in the study. Participants of this study registered online through course announcements. However, after the course was conducted, only 15 postgraduate students and 15 academics met the set criteria. The criteria included the following: the agreement to be a study participant, to not yet have the rank of associate professor, and to study or work at Universiti Kebangsaan Malaysia. Once the course registration was finalized, we formed a WhatsApp group to join all course participants together. We reminded them again that this course was suitable for those who are trying to write journal articles, do not have article writing experience, and who want to publish articles in high-indexed journals.

The selection of study participants as discussed above for the various phases was based on the three phases of the LWPJ Module development workflow process, as shown in Table 3.
<table>
<thead>
<tr>
<th>Phase</th>
<th>Sampling</th>
<th>Participants</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs analysis</td>
<td>Aim</td>
<td>Postgraduate students</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Academics</td>
<td>10</td>
</tr>
<tr>
<td>Development</td>
<td>Aim</td>
<td>Panel of expert evaluators</td>
<td>5</td>
</tr>
<tr>
<td>• Module testing</td>
<td></td>
<td>Content experts</td>
<td>6</td>
</tr>
<tr>
<td>• Pilot study</td>
<td></td>
<td>Postgraduate students</td>
<td>15</td>
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<td>Academics</td>
<td>15</td>
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<tr>
<td>Assessment and evaluation</td>
<td>Aim</td>
<td>Postgraduate students</td>
<td>15</td>
</tr>
<tr>
<td>• Actual study</td>
<td></td>
<td>Academics</td>
<td>15</td>
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</tbody>
</table>

5. Conclusion and Recommendations

The LWJP Module designed in this study motivates and inspires those in academia to produce various credible scholarly writings, such as research proposals, conference proceedings, journal articles, and theses/dissertations, although this study specializes in the production of journal articles. The module designed emphasizes the need to produce quality scholarly writings. The module was tested on postgraduate students and academics by integrating it into a two-day course, and their quality of writing measured before, during, and after the course. Through this module, students and academics can identify and improve the skills needed for academic writing. The use of information technology, especially WhatsApp, Microsoft Teams, and web searches of journal articles through Google Scholar and other search engines, made the experience and process of writing and publishing journal articles easy and realistic in the set time. The module helps dedicated academics to produce journal articles that will be successfully published according to the quality set by the publishing journal.

This study provides added value in terms of increasing talent and excellence among academics and postgraduate students. The developed module can be used as a supplement for article writing and publication courses. In addition, the developed questionnaires can be used to measure the effectiveness of the module and the mastery of skills possessed by participants before and after the course. This LWPJ Module can be utilized by universities and college communities, resulting in increased outstanding talent and improved academic leadership in publications. Talent management carried out in a planned, comprehensive, and holistic manner in an HEI will help the organization to realize their mission and vision in sustaining excellence (Norzaini et al., 2020).

Overall, it can be concluded that a love for writing and publishing can be instilled in academics and postgraduate students in HEIs through the LWJP Module that has been designed. In addition, the study also found that the teaching and learning of the module through courses or workshops, as well as monitoring through WhatsApp and internet searches, were extremely valuable and aided participants’ success in producing journal articles as planned. The positive attitudes and emotions implanted in participants during the training motivated
them to write more than one scientific paper. Reliance on information technology in research and development in HEIs has become very important, especially during the COVID-19 pandemic that hit the world in December 2019. We recommend that this module be patented and utilized by students and academics from various institutions of higher learning in- and outside Malaysia.

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