RESEARCH ARTICLE

Evaluation of the effectiveness of written communication training of a public higher education institution using the Kirkpatrick model

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ABSTRACT

Background: This study aims to evaluate the effectiveness of the "Effective Written Communication Training" provided among 16 UP Manila administrative employees following Kirkpatrick's training evaluation model.

Objectives: This study specifically examines the reaction of the employees to the training program (Level 1), changes in the level of learning (Level 2), and transfer of training in the workplace or behavioral changes (Level 3).

Methodology: The study used a cross-sectional design, and the primary data was collected through survey questionnaires, a pretest, and a posttest. For the Level 1 evaluation, a training assessment survey was given to the participants. For the Level 2 evaluation, tests were given to the participants before and after the conduct of the training program. For the Level 3 evaluation, a survey questionnaire was given to the participants and their immediate supervisor five months after the end of the training.

Results: The Level 1 results showed that the participants' overall reaction to the training was Excellent in terms of training design, facilitation, resource speaker/facilitator, and overall experience. For the Level 2 evaluation, results showed that there is a significant change (t(15)=11.32, $\rho<0.05$) in the participants' learning about written communication, as shown in the difference between the pretest (M=16.56, SD=3.01) and posttest scores (M=20.25, SD=2.49). Results of the Level 3 evaluation showed that written communication competencies have been applied to the workplace. Employees confidently compose written correspondences, construct formal and official letters, and relay queries using a more appropriate choice of words, which the participants' supervisors also observed.

Conclusion: Overall, the training program was found to be effective in improving the participants' written communication skills, following Kirkpatrick's training evaluation model.

Keywords: *training effectiveness, training evaluation, Kirkpatrick model, written communication*

Introduction

Effective Communication is among the most integral catalysts for professional and personal growth. It is a soft skill that not only prevents miscommunication, but expedites the process of decoding messages and promotes synergy between individuals [1]. Communication can be categorized into different forms, including written communication, which is defined as any exchange of information expressed in written words [2]. Written communication is among the main communication channels in the workplace, cutting across all areas of an organization. This encompasses physical and virtual

copies of business letters, memos, proposals, and others. With the rapid development of technology, computer-mediated communication, such as e-mails, have dominated the means of communication within the workplace [3]. Undoubtedly, effective written communication is indispensable to fulfilling the goals and objectives of every organization.

Writing is a skill set that requires an in-depth understanding of the principles of effective written communication. In contrast to oral communication, written communication involves a delay

in feedback; thus, the accuracy of the information encoded must be ensured [1]. According to Prabavathi and Nagasubramani, completeness, clarity, and correctness are among the most important elements in written communication [4]. Paying close attention to grammar and spelling is also integral in any form of written output, as this may alter the intended meaning of the message [5]. Research by Aschliman revealed that among human resources executives in 5000 companies in the United States, accuracy was the most valued characteristic of writing within the workplace [6]. This was followed by clarity and then spelling, punctuation, and grammar. It is therefore crucial for organizations to work towards improving written communication among their employees.

Since organizations invest time and money to facilitate the enhancement of their employees' competencies, evidence of the fulfillment of training efforts is only necessary for the culmination of the program [7]. The systematic process of obtaining data to determine the effectiveness of a training program is known as training evaluation. Evaluation measures that are psychometrically sound open an avenue for examining the impact of a training program on the individual and the organization. As noted by Armstrong, comparing the objectives of the training program with its outcomes measures if the event has served its purpose [8].

One of the most extensively employed training evaluation systems is Kirkpatrick's Four-Level Evaluation Model. This approach, designed for training in the academic setting and workplace, comprises the following levels: Reaction, Learning, Behavior, And Results [9]. At the Reaction level, the immediate reaction of the participant is identified. The participants' overall reactions such as satisfaction, feeling, and impression of the training can be determined using a survey questionnaire which can be given as an end-of-training survey evaluation [10]. Despite the small correlation between the reaction of the participants and the resulting behavior change, obtaining the reaction of learners can still yield insightful information if objectives have been met [8].

Following the Reaction phase is the evaluation of Learning, where knowledge gained will be tested using different tools such as written or oral assessments. These assessments can be in the form of a pretest and posttest given to the participants before and after the training program [11]. Afterward, the Behavior change will be evaluated by determining if the expected competencies have been applied to the workplace. Different tools can be used to measure behavioral changes five to six months after the end of the training program, and these tools include a supervisor-based measure of performance, self-

assessment, performance record review, and peer review [12]. The final level of Kirkpatrick's model is Results, which involves an analysis between the costs and benefits of the training. Tools like Return on Investment (ROI) have proved to be effective in quantifying the impact of the training program on the organization. While the Kirkpatrick model has been widely applied in both the workplace and learning institutions, it has received criticisms for being inapplicable for formative evaluation and, likewise, due to its hierarchical nature [13]. Notwithstanding these criticisms, Kirkpatrick's model continues to offer organizations an effective framework to evaluate training programs and enhance the competency of their employees [14].

With the growing research studies about the importance of written communication skills in the workplace, the Human Resource Development Office (HRDO) of the University of the Philippines Manila, in its constant pursuit and commitment to further enhance the skills of its employees, planned and designed the Effective Written Communication Training. This written communication training is necessary as it fulfills the university's goals and objectives in communicating information, policies, updates, and other essential topics in the workplace without requiring additional time for clarification. An evaluation that measures the effectiveness of this training program is vital as it ensures that employees' knowledge and skills are enhanced at the end of the training program. This paper presents how Effective Written Communication training was designed, developed, and eventually evaluated by the employees who participated in this training program. It also describes how the effectiveness of the written communication training program was determined and measured to contribute to the existing knowledge on measuring training effectiveness.

Conceptual Framework

The conceptual framework in Figure 1 was developed based on the objective of this study. This study aimed to evaluate the effectiveness of the Effective Written Communication training provided among UP Manila employees using Kirkpatrick's training effectiveness evaluation model. In describing and measuring whether the training provided to UPM employees

Figure 1. *Conceptual Framework of the Study*

was effective or not for individual and university performance, the current study examined the participants' reactions, learning and behaviors.

Research Objectives

This study aimed to measure the effectiveness of the Effective Written Communication Training conducted among administrative personnel of the Central Administration of the University of the Philippines Manila following Kirkpatrick's training evaluation model. Specifically, this study focused on achieving the following research objectives:

1. Describe the participants' overall reaction to the Effective Written Communication training in terms of design, facilitation, resource speaker/facilitator and overall experience (Level 1);
2. Determine if there is a significant change to the participants' learning before and after participating in the Effective Written Communication training (Level 2); and
3. Assess if there are noticeable and measurable changes to the participants' behavior as assessed by them and their respective immediate supervisor, and whether these behavioral changes were applied in the workplace (Level 3).

Methodology

Research Design

With the growing research studies about the importance of written communication skills in the workplace, HRDO UP Manila, in its constant pursuit and commitment to further enhance the skills of its employees, planned and designed Effective Written Communication Training. The present study was made to verify its effectiveness and determine its impact using the evidence presented in support of the training program. The Training Evaluation Model developed by Kirkpatrick was used to carry out the aims of this study [9]. This study is a cross-sectional study wherein the primary data was collected through survey questionnaires, a pretest, and a posttest representing different levels of Kirkpatrick's training effectiveness model. This study only focused on Level 1-3 evaluation in assessing the effectiveness of the training, namely, the participants' overall reaction (Level 1), learning (Level 2), and behavior change (Level 3). Level 4 evaluation was not performed since the training program was not implemented for all the UPM employees and was not yet fully developed for organization and long-term impact assessment.

Participants

The participation of UPM employees in the Effective Written Communication training program was based on the recommendation of the Administrative Officers of UP Manila Colleges, Units, and Offices. The training is limited to a maximum of 20 participants, as requested by the facilitator, to maintain the quality of learning given the course structure and content. A total of 20 employees participated in the training program; however, only 16 participants were able to complete all the questionnaires and tests given to them. As a result, only the data obtained from the 16 participants were analyzed and reported. This resulted in having a purposive sampling method in choosing the participants for this study. The 16 participants were chosen on the basis that they completed the training program sessions and submitted the questionnaires and tests.

Instruments

The instruments used in this study were survey questionnaires and a 25-item multiple choices test developed by the researchers/training organizers. The Training Evaluation Survey, with control number UPM-HRD-OP-01F34, is the standard evaluation form for training/workshops of UP Manila. It is an online questionnaire in Google Forms format designed to obtain information about the demographic profile of the participants and their overall reaction to the training in terms of design, facilitation, resource speaker/facilitator, and overall experience. This training evaluation survey consisted of the following: (a) 15 Likert-type statements wherein responses range from 1=Poor, 2=Fair, 3=Good, and 4=Excellent, and (b) one open-ended question that asked the participants which aspect of the course was most helpful to their current work.

In assessing changes in the participants' learning before and after the training, a pretest and a posttest were developed. The pretest and posttest were 25-item multiple choices tests in a Google Form format given to the participants to measure changes in their learning, and each item was marked the same point (1 point each). The invited speaker validated the items of these tests, and these covered the topics included in the training.

Lastly, the Training Effectiveness Survey is a self-assessment and supervisor-based measure of performance designed to obtain information on whether the expected written communication competencies have been applied to the workplace by the employees who participated in the training program based on the existing literature. The survey was subjected to face and content validation before it was

disseminated to the employees and their immediate supervisors. The training effectiveness survey consisted of the following: (a) one yes/no question, (b) two open-ended questions, and (c) 15 Likert-type statements wherein responses range from 1=Poor, 2=Fair, 3=Good, and 4=Excellent.

Data Collection Method

In completing this research, the participants answered via Google Forms for the survey questionnaires and pretest and posttest. For the Level 1 evaluation, the participants were asked to answer the Training Evaluation Survey. This survey questionnaire was immediately given to the participants at the end of the 4-session training program. For the Level 2 evaluation, the participants were asked to accomplish the 25-item multiple choice pretest and posttest to measure changes in their learning about written communication. The pretest was given to the participants before the start of the training, while the posttest was given at the end of the 4-session training. For the Level 3 evaluation, the participants were asked to answer the Training Effectiveness Survey. This survey questionnaire was given to the participants and their respective immediate supervisors five months after the completion of the training. The dataset was automatically generated from the Google Forms survey disseminated to the participants. Responses generated from these Google Forms were stored in a password-protected laptop accessible only to the research team.

Table 1 summarizes Kirkpatrick's training evaluation model adapted to evaluate the conducted training program, the instruments used to gather data for each level, and the data collection method.

Data Analysis

All the complete data obtained and tabulated from the Google Forms from the inclusive date of research implementation were considered part of the study. Various statistical methods were used to analyze the data. Descriptive statistics, including frequencies and percentages, were used to describe the participants' demographic profile. The participants' overall reaction to the training and change in behavior, as assessed by them and their respective immediate supervisors, were described using frequencies, mean, and standard deviation.

Mean, standard deviation, and t-test for paired samples with 95% confidence level were used to describe a significant change in the participants' learning before and after the completion of the training as measured using the developed pretest and posttest. Data were tabulated and analyzed using Statistical Package for the Social Sciences (SPSS) version 23.

Ethical Considerations

The participation of these employees in this study is voluntary; it is up to them whether they decide to participate or not. They were asked to sign an informed consent form if they chose to participate. After signing the consent form, they were still free to withdraw at any time without giving a reason. If they withdrew from the study before data collection was completed, any data gathered prior to their withdrawal will be destroyed. All information collected from the participants was kept private, and their identities were not revealed to anyone. Since the names of the employees were needed to identify the significant changes in both learning and behavior, codes were used so no one could identify the participants, aside from the research team. The participants were requested to write their contact number and email so they could be reached whenever the research team needed to clarify a response. The filled-up questionnaires were kept in a secure place and were only accessible to the research team. Also, data collected from the study were not shared with or given to anyone or posted on any social networking site. The confidentiality of the data

Table 1. *Instruments used following Kirkpatrick's training program model evaluation*

Level	Learning in Training Programs	Measurement Instruments and Data Collection Method
Reaction (Level 1)	The participants' reaction to design, facilitation, and resource speaker/facilitator	*Training Evaluation Survey* Survey questionnaire was immediately given to the participants at the end of the 4-session training
Learning (Level 2)	Measures of learning (knowledge) outcomes achieved by the participants	*Pretest and Posttest* 25-item multiple choices tests were given to the participants before and after the training
Behavior (Level 3)	Measures of change in performance of the participants after the completion of the training	*Training Effectiveness Survey* Survey questionnaire was given to the participants and their respective immediate supervisors five months after the completion of the training

gathered from this study was ensured in compliance with the Data Privacy Act of 2012. This research was registered with the UP Manila Research Grants Administration Office (RGAO) with the Identification Number 2022-1136.

Training Design and Process

Written Communication is a type of formal communication that is used most often to clearly communicate information, policies, updates, and other important topics in the workplace without requiring additional time for clarification. It is an integral skill that an employee should possess to clearly and purposefully convey a message, create effective content, and use effective writing to foster harmonious working relationships in the organization. Aside from this, the need to provide trainings on effective written communication transpired from the Training Needs Assessment done by the HRDO.

The HRDO invited and tapped the expertise of Professor Alice B. Adeva, Assistant Professor VII and currently the Chairman of the Department of Arts and Communication, College of Arts and Sciences-University of the Philippines Manila, to be the resource speaker for the webinar. Due to the restrictions brought on by the pandemic, the webinar was conducted online via Zoom from May 18, 2022 to June 15, 2022, with four half-day sessions, all scheduled in the afternoon with a total of 12 training hours. The objectives of the training are to cover the essentials of communication, including professional writing, presentations, speeches, and phone and online communication, as well as the right tools to build and deliver any message effectively.

The training was divided into four sessions, with one module scheduled for each day. As an overview, the first module was scheduled last May 18, 2022, that initially introduced the fundamentals and principles of Written Communication. The second session, scheduled last June 1, 2022, focused on formality in Written Communication and Adaptation and Selection of Words. The third session or third module, held last June 8, 2022, concentrated on the forms of business messages like drafting letters, memoranda, and emails. The last session or the fourth module was intended for directness in good news and neutral messages and indirectness in bad-news messages.

Module 1 introduced communication in general and the principles of written communication.

The sessions started with the participants introducing themselves, and presenting their prepared written communication. The initial discussion focused on the meaning of communication and the importance of communication skills in the employees' day-to-day work, regardless of their position and department. Thereafter, the principles of communication, namely, 1) Correctness; 2) Clarity; 3) Conciseness; 4) Completeness; 5) Consideration; 6) Concreteness; and 7) Courtesy, were discussed, and examples were given to provide further clarification on each principle.

Module 2 tackled the formality in written communication and the adaptation and selection of words. The first part of the session discusses the level of formality, how it is determined by the receiver, and the differences of formal, semi-formal, and informal language in written form based on the relationship between the sender and receiver. For the second part of the session, the adaptation and selection of words were comprehensively discussed, and examples were given for the participants to learn how to strategically adapt and select appropriate words in communication. The resource person stressed the important role of using gender-neutral words to avoid discriminatory writing and confusion between the sender and recipient.

Module 3 highlighted the discussion on the different business messages, specifically letters, memoranda, and emails. The facilitator pointed out that the session is for relearning or unlearning the things the participants know about business messages, since learning is a continuous cycle.

The first few hours were intended for the process of writing business letters which are planning, drafting, and revising. This was then followed by the main topic on Business Letter, and its seven basic parts: 1) Sender's address, 2) Date, 3) Recipient's Address, 4) Salutation, 5) Body, 6) Closing/Signature, and 7) Enclosure. Each part of the business letter was comprehensively discussed, with samples of the do's and don'ts based on the references of the facilitator. After the discussion on Business Letters, the lecture focused on format, font types, and size. Memoranda and emails were briefly discussed following the recommended format and purpose. At the end of the session, the facilitator identified key points to remember in writing an email that may be used as guidelines in drafting business messages.

Module 4 focused on the lecture on directness in good-news and neutral messages, as well as the indirectness in bad-news messages. Similar to the previous sessions, the Module 4 lecture started with a discussion on takeaways from the previous sessions, ideas that struck the participants the most, and habits in letter or email writing that they

intend to break or change after undergoing the Module 3 session. The participants were able to share their own answers that started the lecture on module 4. A preliminary assessment of the if-and-then scenario was first discussed as part of the planning. This identified the right strategies the participants should implement in drafting or answering business messages, whether direct or indirect. Professor Adeva stated all possible scenarios where good news and neutral messages can be applied and how the appropriate strategies can be used.

The second part of the session deals with the general indirect plan that is more appropriate for negative and bad news messages through the use of a strategic buffer, presenting the bad news positively, offering an alternative solution and ending on a positive note. Lastly, a lecture on handling negative messages, inquiries and requests was held, and a checklist for preparing bad news messages was presented, which the participants can use when replying.

To cover all the modules, the course spanned four weeks , as shown in Table 2. In the first week, the participants got to know the facilitator, participated in a discussion on Module 1, and were given the pretest. The remaining weeks were allotted to Modules 2-4. Before starting each session, the facilitator asked recap questions to determine their key takeaways from the previous session, ideas that struck them the most, and important lessons they have learned. After the last module, the HRDO sent out the training evaluation form, along with the posttest of the training.

Table 2. *Effective Written Communication Training Design*

Date	Content	Activities/Topics
Session 1 (May 18, 2022)	Preliminaries	Orientation Pretest
	Module 1	Principles of written communication
Session 2 (June 1, 2022)	Module 2	Formality in written communication Adaptation and selection of words
Session 3 June 8, 2022)	Module 3	Forms of business messages (Letters, memoranda, email)
Session 4 (June 15, 2022)	Module 4	Directness in Good-news and Neutral messages Indirectness in Bad-news messages
	Closing	Posttest
		Course Evaluation

Table 3. *Profile of the Participants (N=16)*

Demographic Profile	Classification	Frequency	Percentage (%)
Gender	Male	2	12
	Female	14	87
Age Bracket	21-30	4	25
	31-40	6	38
	41-50	4	25
	51-60	2	12
	61 and above	0	0
Status of Appointment	Permanent	11	69
	Temporary	0	0
	Contractual	2	12
	Job Order (JO)	3	19

Results

Profile of the Participants

Table 3 below shows the characteristics of the employees who participated in the Effective Written Communication Training.

It can be seen from the table that the gender distribution was higher for females, with a total of 14 accounting for 87% of the participants, while the two males accounted for only 13% of the participants. The age bracket of the participants showed that 38% belonged to ages 31-40, while both the 21-30 and 41-50 age brackets accounted for 25% of the participants. Two participants belong to the 51-60 age bracket, while none of the participants belong to the 61 and above age bracket. The findings also showed that 11 (69%) of the participants had a permanent status of appointment, 2 (12%) participants were contractual, and 3 (19%) participants were job order (JO). JO is the process of hiring personnel for work within a short period of time with no employee-employer relationship. Job Order Personnel are not entitled to benefits enjoyed by regular employees.

Level 1: Reaction

Table 4 provides descriptive statistics for the participants' reaction level, which included four subscales: design, facilitation, resource speaker/facilitator and overall experience using a 4-pt Likert scale questionnaire. Mean (M) and standard deviation (SD) were the bases for determining the participants' overall reaction to the training. The obtained mean values were interpreted as 1.0-1.75=Poor (P); 1.76-2.51=Fair (F); 2.52-3.27=Good (G); and 3.28-4.00=Excellent (E), adopted from Pimentel [15].

Table 4 shows that the participants rated 6 out of 6 statements in the design subscale as Excellent (M=3.94, SD=0.27). The overall delivery statement obtained the highest mean rating (M=4.00). Relevance of the content, clarity of webinar objectives, thoroughness of the discussion, and usefulness of the topic to the current situation all got a mean rating of 3.94 (SD=0.25). The sequence of the content statement got a mean rating of 3.88 (SD=0.34). Overall, the participants rated all the statements in the design subscale as Excellent.

Table 4. *Descriptive statistics for the participants' overall reaction to the training (N=16)*

Criteria	Statements	Mean	SD	Verbal Interpretation
I. Design of the Training	1. Sequence of the content	3.88	0.34	Excellent
	2. Relevance of the content	3.94	0.25	Excellent
	3. Clarity of Webinar Objectives	3.94	0.25	Excellent
	4. Thoroughness of the discussion	3.94	0.25	Excellent
	5. Usefulness of the topic to the current situation	3.94	0.25	Excellent
	6. Overall delivery	4.00	0.00	Excellent
	Weighted mean and SD	3.94	0.27	Excellent
II. Facilitation of the Training	1. Time management	3.88	0.34	Excellent
	2. Professional conduct	3.94	0.25	Excellent
	3. Assistance to the participants	4.00	0.00	Excellent
	4. Appropriateness of learning methodologies	4.00	0.00	Excellent
	Weighted mean and SD	3.96	0.30	Excellent
III. Resource Speaker/Facilitator	1. Knowledge of the Topic	4.00	0.00	Excellent
	2. Presentation Skills	3.94	0.25	Excellent
	3. Content of the Presentation	3.94	0.25	Excellent
	4. Professional Conduct	4.00	0.00	Excellent
	5. Scope and Depth of the Presentation	4.00	0.00	Excellent
	Weighted mean and SD	3.98	0.25	Excellent
IV. Overall	Overall Experience	4.00	0.00	Excellent

When it comes to facilitation, it can be seen from Table 4 that the participants rated 4 out of 4 statements in the facilitation subscale as Excellent (M=3.96 SD=0.30). The assistance to the participants and appropriateness of learning methodologies statements obtained a mean rating of 4.00. The professional conduct statement got a mean rating of 3.94 (SD=0.25), while the time management statement got a mean rating of 3.88 (SD=0.34).

The participants rated 5 out of 5 statements in the resource speaker/facilitator subscale as Excellent (M=3.98, SD=0.25). Knowledge of the topic, professional conduct, and scope and depth of the presentation obtained the highest mean rating (M=4.00). The presentation skills and content of the presentation got a mean rating of 3.94 (SD=3.94).

All sixteen participants rated their overall experience of the Effective Written Communication Training as Excellent. These results were proven by the high mean rating obtained by the measured three subscales: design, facilitation, and resource speaker/facilitator. Moreover, all three subscales did not obtain a "Poor" or "Fair" rating from the participants. In an open-ended question wherein, the participants were asked which aspect of the course was most helpful to their current work, some of their responses were as follows:

Participant 1: "To be honest, every topic discussed in the 4 days of training was helpful to my current work. From the Business letter writing, principles of writing, format and styles when writing letters and emails, etc., all are helpful to my current work."

Participant 2: "Format in the letter writing and proper usage of words. It is beneficial since I am answering various inquiries through email and sometimes, I write letters regarding recruitment and selection process and other inquiries."

Participant 3: "The whole course, especially proper composing of a business letter and the different styles in writing a letter."

Level 2: Learning

The participants were also given a pretest and a posttest to ensure the effectiveness of the Effective Written Communication Training as well as to maximize their learning. The pretest was given before the start of the training, while the posttest was distributed at the end of the 4-session training. The posttest scores were compared with the pretest scores to capture the percentage of learning gained by the employees.

The findings showed that all the pretest scores (M=16.56) improved after the employees participated in the training, which showed in their posttest scores (M=20.25). Participant 4 obtained the lowest learning gain percentage (5%) while Participant 12 obtained the highest learning gain percentage (47%). Overall, the pretest and posttest results showed that all the participants achieved a positive learning gain (M=19%) after participating in the training program.

To further determine if there is a significant change in the participants' learning before and after the training, a Paired Sample T-test was performed. Mean, standard deviation, and T-test for paired samples were used to describe the gathered data. After the 4-session training, a significant change ($t(14)=7.447$, $\rho<0.05$) in the participants' learning about written communication was revealed, as shown in the difference between the pretest scores (M=16.93, SD=3.57) and posttest scores (M=19.54, SD=3.29). Results showed an increase in the participants' learning, and the training was found to be effective in enhancing the written communication skills of the participants.

Level 3: Behavior

In describing the behavioral changes of the participants after participating in the Effective Written Communication Training, a Training Effectiveness Survey was disseminated to them and to their immediate supervisors five months after the conduct of the training. To determine whether the expected written communication competencies have been applied to the workplace, the employees and their immediate supervisors were asked the following yes/no and open-ended questions: (1) After the training, did you/your staff feel comfortable handling assigned tasks? (2) In what way/s have you/your staff applied your learning from the training you have attended? (3) What are your/your staff's specific work practices that changed as a result of the training?

Results obtained from the yes/no question showed that the sixteen participants responded "Yes" when they were asked if they felt comfortable handling assigned tasks after participating in the training. This was also validated by all 16 immediate supervisors who answered "Yes" that their staff felt comfortable handling the tasks assigned to them.

The responses of the participants as to the way/s they have applied their learning from the training they have

attended vary in preparing business letters, memoranda, email correspondence, and reports. The majority of them answered that they were able to apply and follow the rules on written communication skills from composing formal written correspondences, to reviewing and editing their own drafts using a more appropriate choice of words in relaying information. These applications were also observed by their respective supervisors, highlighting the development of their skills and attitudes in writing official communication letters and reports, as well as their improved writing styles.

In addition, different work practices have changed as a result of the training. The participants noted that they were able to adopt the use of the 7 C's of effective business communication in composing emails and business letters, particularly being concise, considerate, and clear. Most of them also mentioned that they became more mindful of the words to use to better convey the messages to their intended recipients. These changes were also attested by their respective supervisors, where their staff showed increased confidence in composing emails and letters, and became more detail-oriented and direct in preparing written communications. These significant changes indicate improvements in their business communication skills, specifically in written form. For instance, some of the responses of the participants and their immediate supervisors were as follows:

Participant 3: "Improvement of written outputs in terms of tone, conciseness, selection of words, etc. I feel more confident in accepting writing tasks after the training."

Supervisor 3: "She became more meticulous with the details of the messages, she reads and prepares in terms of correctness and accuracy."

Participant 8: "I was assigned to email correspondence with our stakeholders, and attending the seminar helped me refresh some of the know-how of constructing a formal email correspondence."

Supervisor 8: "Primarily, she handles the email communication in the office. Secondly, she prepares communication letters to some offices in relation to the requirements of the HRDO, particularly in processing university clearance. The way she writes her communication letter is much better than before she took up the workshop."

Participant 16: "I became more aware of choosing the words I am using, especially in answering emails/correspondence to clients. I also became more professional in responding to emails."

Supervisor 16: "After the training, it was evident that she became more confident and expeditious in answering emails, drafting correspondences, and getting her message across."

The participants were also asked to rate their current skills in written communication, as presented in Table 5.

It can be seen from Table 5 that the participants' responses were a combination of Good and Excellent responses in incorporating the seven C's of effective business communication in the workplace, knowing when to use formal, semi-formal, and informal English written communication, selecting appropriate words in communication, using gender-neutral words, writing business letters, and using direct strategy in conveying good news or neutral information. The same ratings were also given by their respective supervisors, who agreed that the written communication skills of their staff improved after the training. Moreover, writing memorandums got a rating of Fair, both from the participants and their supervisors. This suggested that more in-depth writing of memorandums may be focused on in the succeeding written communication training to be provided to employees.

Discussion

This paper described the evaluation of the effectiveness of Effective Written Communication Training provided among 16 UPM administrative employees following Kirkpatrick's training evaluation model: Reaction (Level 1), Learning (Level 2), and Behavior (Level 3). Written communication is vital in every area of an organization–from marketing to customer service. Writing is beyond a task but is a measure of high skill and professional work [6]. Thus, poor writing can yield cascading effects for the employee and the company as a whole.

An evaluation that measures the effectiveness of the Effective Written Communication training program is vital as it ensures that employees' knowledge and skills are enhanced at the end of the training program. Kirkpatrick's four-level evaluation model was used in this study to evaluate the effectiveness of the written communication training provided to UPM employees. It is one of the most extensively employed training evaluation systems, which is designed for training in the academic setting and workplace, and comprises the following levels: Reaction, Learning, Behavior, and Results [9].

Findings from this study for Level 1 evaluation show that among the three subscales being measured, namely design,

facilitation, and resource speaker/facilitator, the participants had the most excellent responses to the resource speaker/facilitator. It shows that the participants had the highest level of satisfaction with the resource speaker's knowledge of the topic, presentation skills, content, scope and depth of the presentation, and professional conduct. Boyd *et al.* confirmed the importance of the participants' satisfaction with the efficiency and quality of the resource speaker for a training program to be effective [16]. Alsalamah and Callinan also highlighted that an effective resource speaker is highly influential in motivating the participants to perform better, meeting training objectives, and achieving successful and effective training [14]. Similarly, training programs that received positive feedback regarding the facilitation and design of the training were marked as effective, with the participants willing to recommend the training program to peers and future employees [17,18].

For the Level 2 evaluation, the participants were asked to answer a pretest and posttest to measure changes in their learning before and after the training program. The paired sample T-test was performed to determine if there was a significant difference between the pretest and posttest scores of the participants. Results showed an important contrast between the pretest and posttest scores suggesting an increase in the participants' learning. The training was found to be effective in enhancing the written communication skills of the participants, as presented by the achieved results at the learning level. The result of this study is consistent with the study conducted by Frawley *et al.*, which revealed an increase in the participants' learning gains after participating in written communication training [19]. A study by Kataoka *et al.* was remarkable, as it measured a specific learning outcome many times throughout the years where communication skills training was a part of the participants' curriculum [20,21]. It was found that the participants' scores increased after completion of the program, but rebounded to the pretest level after 3-4 years. This suggests that while the targeted communication skills programs for medical students can have a significant effect, supplemental reinforcements may be needed for a sustained long-term effect.

For the Level 3 evaluation, the training effectiveness survey was given to the participants and their respective immediate supervisors five months after the completion of the training. Results showed that the expected written communication competencies had been applied to the workplace by the employees who participated in the training program. The training program helped employees compose written correspondences, construct formal and official letters, and relay queries using a more appropriate choice of words. These improvements were also observed by their respective supervisors, highlighting the development of their skills in writing official communication letters and reports, and better writing style.

Another significant result indicating the success of the training program is that the participants became more confident in writing business letters and emails as observed by their supervisors. They were also able to compose and deliver written correspondences with correctness and accuracy. As emphasized by Bernoff, the primary technique recognized in business education is the presentation of written materials on key writing letters and emails with correct organization and free from grammatical issues [2]. A study by Holmes *et al.* showed that emphasizing the ability to communicate effectively helped employees build successful careers in their respective organizations [22]. Furthermore, written communication is fundamental to active leadership, which can boost employee relations and gain business partners' trust [23].

Conclusion and Recommendation

This study adapted the Kirkpatrick Training Evaluation Model in evaluating the effectiveness of the Effective Written Communication training program provided to UPM employees. The cross-sectional research design used in this study illustrates that the Kirkpatrick model provides a more holistic understanding and insights into ensuring the effectiveness of the training program. The findings of this study showed that overall the training was effective in enhancing the participants' written communications skills as measured using the reaction, learning ,and behavior of Kirkpatrick's training effectiveness model. For the Level 1 evaluation, the participants' overall reaction to the training was Excellent in terms of training design, facilitation, resource speaker/facilitator, and overall experience. There was also a significant change in the participants' learning, as shown in the difference between the pretest and posttest mean scores for the Level 2 evaluation. Lastly, the Level 3 evaluation results showed that written communication competencies had been applied to the workplace as assessed by the participants and their immediate supervisors.

For future written communication training programs, it is suggested to have more in-depth sessions on the writing of memorandums, applying positive responses to inquiries and requests and handling negative responses to inquiries and

Table 5. *Training Effectiveness Survey Results*

Indicators	Participants															
4. Kindly rate your current skills in the following areas:	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16
4.1 Incorporating the seven C's of Effective Business Communication in workplace	E	G	G	E	G	G	E	E	E	G	E	G	G	G	G	G
4.2 Knowing when to use formal, semi-formal, and informal English in written communication	E	E	E	E	G	G	E	E	E	G	E	G	G	G	G	G
4.3 Selecting appropriate words in communication	E	E	G	E	G	G	E	E	E	G	E	G	G	G	G	G
4.4 Using gender-neutral words	E	E	E	G	E	G	E	G	E	G	G	G	G	G	E	G
4.5 Writing Business Letters	G	E	G	G	G	G	G	G	E	G	G	G	G	G	G	G
4.6 Writing Memorandums	G	N/A	G	N/A	G	G	E	E	E	F	G	G	N/A	G	G	F
4.7 Writing Business Emails	G	E	G	E	E	E	G	G	E	G	G	G	G	G	G	G
4.8 Using direct strategy in conveying good news or neutral information	G	E	G	N/A	G	G	E	G	E	G	G	G	G	G	G	G
4.9 Applying positive responses to inquiries and requests	G	E	G	G	E	E	E	G	E	G	E	G	F	G	G	G
4.10 Handling negative responses to inquiries and requests	G	E	G	N/A	E	G	E	E	E	G	E	G	F	G	G	F
Legend: *P=Poor *F=Fair *G=Good *E=Excellent *N/A=Not Applicable																

Indicators	Supervisor															
4. Kindly rate your staff's current skills in the following areas:	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16
4.1 Incorporating the seven C's of Effective Business Communication in workplace	G	G	G	E	G	G	E	E	G	G	E	G	G	G	E	F
4.2 Knowing when to use formal, semi-formal, and informal English in written communication	G	G	E	E	F	G	E	E	G	G	G	G	G	G	E	G
4.3 Selecting appropriate words in communication	G	G	E	E	G	G	G	E	G	F	G	G	G	G	E	G
4.4 Using gender-neutral words	G	G	E	E	F	G	E	E	G	G	E	G	F	G	E	G
4.5 Writing Business Letters	G	G	G	E	G	G	G	E	G	G	G	G	G	G	G	F
4.6 Writing Memorandums	G	G	G	N/A	G	G	G	N/A	G	F	N/A	G	F	G	G	N/A
4.7 Writing Business Emails	G	G	E	E	G	G	E	E	G	G	G	G	G	G	G	G
4.8 Using direct strategy in conveying good news or neutral information	G	G	E	E	E	G	E	E	G	G	G	G	F	G	E	G
4.9 Applying positive responses to inquiries and requests	G	G	G	E	E	G	E	E	G	G	E	G	G	G	E	G
4.10 Handling negative responses to inquiries and requests	G	G	G	E	E	G	E	E	G	G	N/A	G	G	G	E	G
Legend: **P=Poor *F=Fair *G=Good *E=Excellent *N/A=Not Applicable																

requests, as these skills obtained a Fair rating from the participants and supervisors. In this study, the training program was conducted online via Zoom; as such, for future research, face-to-face written communication training programs can also be considered to compare its effectiveness versus online training. There is also a need for effective written communication training to be implemented for a significant number of employees to assess the organizational and long-term impact (Level 4 evaluation).

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Declaration Of Conflicting Interests

The authors declare no potential conflicts of interest with respect to the research, authorship, and publication of this research study.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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