DEVELOPMENT, VALIDITY AND RELIABILITY OF PLACE-BASED PROCESS GENRE MODULE (PBPGM)

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Abstract:
The present study is a Type 1 design and developmental research (DDR) study that aims to analyse the situation, design, develop and evaluate an instructional Place-Based Process Genre Module (PBPGM). Upon completing the needs analysis, design and development of the module, it underwent a pilot test. The validity and reliability were then conducted. A panel of experts were involved in determining the validity of the module's content, sessions, and activities. A group of 30 ESL learners were involved in determining its reliability. All content, sessions and activities were rated above 70%, and all sessions and activities were rated over alpha value of 0.70 indicating that PBPGM was valid and reliable to be experimented with.

Keywords:
DDR, PBPGM, Pilot Test, Reliability, Validity

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Introduction

Process approach and genre approach are the two most influential mediums in teaching writing (Nordin, 2017; Din, 2013; Nursazwani et al., 2018; Din et al., 2020). The process approach emphasises planning, drafting and revising, whereas the genre approach underscores modelling, joint construction and independent construction. The birth of the process genre approach conceptualised by Badger and White (2000) indicates the evolution of writing approaches. It amalgamates process and genre approaches into one, making it a more robust platform in teaching writing. The post-process era witnesses the rejection of the dominance of the process approach at the expense of other aspects of writing and writing instruction (Matsuda, 2003a). Previous studies have indicated the positive results of the process genre due to the high scaffolding for writers.

Place-based model texts with relevant and accessible materials for writers can be incorporated in process genre approach. Place-based pedagogy is the right tool to help rural students improve literacy (Smith & Sobel, 2014). When combined, the possibility of developing a place-based process genre module to teach writing adds more scaffolding for writers. A module does not guarantee success, but it creates a readiness to learn (Russell, 1974).

Problem Statement

Cambridge Baseline study (Cambridge, 2014) indicates that rural learners' English language proficiency was significantly worse than urban peers. If the problem continues, ESL learners may be left behind for tertiary education and job opportunities. Writing is one of the most difficult second language skills among rural ESL learners, and it remains a core skill in the present education system. Process genre - a combination of process and genre approaches, offers extensive scaffolding as a writing approach. However, little is known about its practicality among rural ESL learners, particularly modular-based teaching and learning of writing.

Research Objectives

To validate the researcher-developed PBPGM’s content, sessions and activities.
To assess PBPGM’s reliability as a modular-based instructional writing module.

Research Questions

What is the level of PBPGM’s content, sessions and activities validity based on the expert evaluation panel?
Do the ESL learners assess PBPGM as a reliable writing module?

Literature Review

Design and Developmental Research

Although previous researches of process genre (Ajmal & Irfan, 2020; Assaggaf, 2016; Agesta & Cahyono, 2017; Getnet, 2019; Huang & Zhang, 2020; Indrawati, Subadiyono & Turama, 2020; Lara, 2017; Xu & Li, 2018) report on the positive results and benefits, none of the studies involved rural ESL learners. There is also little known about process genre in a modular-based research.
Design and developmental research (DDR) is defined as "the systematic study of designing, developing and evaluating instructional programs, processes and products that must meet the criteria of internal consistency and effectiveness (Seels & Richey, 1993). It focuses on the process of product development and involves context and situation analysis and also the evaluation of the product (Siraj et al., 2013). Richey and Klein (2007) define it as “the systematic study of design, development and evaluation processes to establish an empirical basis for creation of instructional and non-instructional products and tools and new or enhanced models that govern their development”.

DDR research is defined as having two types. Type 1 is concerned with product and tool development, and Type 2, is concerned with model development. The present study is a Type 1 that is concerned with product and tool development and the entire design and development process, which involves the analysis, design, development, implementation, and evaluation is documented (Richey & Klein, 2014). The present study describes the design and development of PBPGM and it aims to determine the validity and reliability of PBPGM. There are different models available to guide the process such as the ADDIE Model, ASSURE Model, Isman Instructional Design Model, and Sidek’s Model, and others. These models can all be applied to create a product in the field of instructional design. The present study employs Sidek’s Module Development Model (2005) to develop the instructional design of the proposed module.

Instructional Design

Instructional design is the process of planning for the creation of instructional materials and programs. Looking at the instructional design from an angle, it serves as a linking science to study and improve methods of developing, delivering and evaluating instruction and instructional practices by looking at the findings of other disciplines such as cognitive psychology and communication (Brown & Green, 2015).

The Applied Laboratory at Penn State University (1996) is attributed with developing a four-part definition of instructional design as follows:

**Instructional Design as a Process**
Instructional design is the systematic development of instructional specifications using learning and instructional theory to ensure the quality of instruction. It is the entire process of analysis of learning needs and goals, and the development of a delivery system to meet those needs. It includes the development of instructional materials and activities; and try out and evaluation of all instruction and learner activities.

**Instructional Design as a Discipline**
Instructional design is a branch of knowledge concerned with research and theory about instructional strategies and the process for developing and implementing those strategies.

**Instructional Design as a Science**
Instructional design is the science of creating detailed specifications for the development, implementation, evaluation, and maintenance of situations that facilitate the learning of both large and small units of the subject matter at all levels of complexity.
Instructional Design as Reality

Instructional design can start at any point in the design process. Often a glimmer of an idea is developed to give the core of an instruction situation. By the time the entire process is done the designer looks back, and she or he checks to see all parts of the "science" have been taken into account. Then the entire process is written up systematically. The job of a designer, therefore, is to create something that allows a person or group of people to develop or improve a set of skills, to learn about a particular topic, or to encourage the learner to conduct further study. In the present study, such a task will involve the development of a writing module.

Modular Instructions

Individual differences are an essential consideration in education in which equal educational opportunity for students is a goal to be achieved, but due to certain constraints, it may never be reached (Russell, 1974).

A module is "a self-contained, independent unit of planned series of learning activities designed to help the student accomplish certain well-defined objectives" (Goldschmid & Goldschmid, 1973). It contains an instructional package that covers a single conceptual unit in which it aims to individualise learning by allowing the student to master one unit of content before moving to the next (Russell, 1974). A modular instruction, on the other hand, can be defined as either entirely or partly based on modules (Goldschmid & Goldschmid, 1973).

A modular approach emphasises on individuals with different limitations and abilities as compared to the class as a whole (Russell, 1973). Gibbons (1971) describes individualised teaching may involve an individual or a class of students. Generally, a module has a self-contained and self-instructional package, statement of objectives, concern for individual differences, active participation by the learner, association, structure and sequence of knowledge, immediate reinforcement of responses and mastery evaluation strategy (Russell, 1974). The use of a module presents a more exible learning environment for both instructors and learners (Cheng & Abu Bakar, 2017).

Sidek's Module Development Model

To develop the modular instructions of the study, the researcher adopts Sidek's Module Development Model (2005). The model has a clear flow of the stages involved in designing modular instruction and has been applied by researchers in the field of modular instructions, as indicated in Figure 1. The model consists of two phases: 1. drafting the module, and 2. testing and evaluating the module. The present study reports on the drafting of the module. It then reports on the pilot test, validity and reliability of PBPGM to ascertain its readiness prior to the proposed intervention.
Sidek’s Module Development Model

| Phase 1                  | Phase 2                  |
|-------------------------|-------------------------|
| Statement of goals      | Pilot test              |
| Selection of theory, rationale, philosophy, concept, target audience & time | Validity testing |
| Needs Analysis          | Reliability testing     |
| Statement of objectives | Module effectiveness testing |
| Selection of content & strategy | Quality of module |
| Selection of logistics  | Complete module for use |
| Draft Module            |                         |

Figure 1: Sidek’s Module Development Module

Development of PBPGM

Selection of Content
Based on the steps in phase 1 of Sidek's Model, the researcher designed a four-session intervention with each session having four lesson plans. Table 1 illustrates the overall content of PBPGM. There are four primary sessions, introduction to process genre, getting acquainted with the five-paragraph essay writing, developing genre awareness, and improving grammar in writing. Each session has four lesson plans, and each lesson plan is carried out in sixty minutes.

Table 1: PBPGM Sessions and Activities Schedule

| Session | Activity | Formative Assessment | Time |
|---------|----------|----------------------|------|
| Session 1: Introduction to Process Genre | Activity 1: Lesson 1A - Getting to Know Process Genre: Preparation, Modelling and Joint Construction | Exercise 1A Quiz 1A | 60 minutes (Week 1) |
|         | Activity 2: Lesson 1B - Getting to Know Process Genre: Pre-writing, Drafting and Revising | Exercise 1B Quiz 1B | 60 minutes (Week 1) |
| Session | Activity | Formative Assessment | Time |
|---------|----------|----------------------|------|
| Activity 3: Lesson 1C | Practising Process Genre: Joint Construction of Text Using Process Genre | Exercise 1C Quiz 1C | 60 minutes (Week 2) |
| Activity 4: Lesson 1D | Practising Process Genre: Independent Construction of Text Using Process Genre | Exercise 1D Quiz 1D | 60 minutes (Week 2) |

**Session 2: Getting Acquainted with the Five-Paragraph Essay Writing**

| Session | Activity | Time |
|---------|----------|------|
| Activity 1: Lesson 2A | Recognising the Basic Framework Of the Five-Paragraph Essay Writing | Exercise 2A Quiz 2A | 60 minutes (Week 3) |
| Activity 2: Lesson 2B | Mastering the Functions and Relationship In and Between Paragraphs | Exercise 2B Quiz 2B | 60 minutes (Week 3) |
| Activity 3: Lesson 2C | Joint Construction of a Five-Paragraph Essay Using Genre | Exercise 2C Quiz 2C | 60 minutes (Week 4) |
| Activity 4: Lesson 2D | Independent Construction of a Five-Paragraph Essay Writing Using Process Genre | Exercise 2D Quiz 2D | 60 minutes (Week 4) |

**Session 3: Developing Genre Awareness**

| Activity 1: Lesson 3A | Joint and Independent Construction of a Five-Paragraph Narrative Essay Using Process Genre | Exercise 3A Quiz 3A | 120 minutes (Week 5) |
| Activity 2: Lesson 3B | Joint and Independent Construction of a Five-Paragraph Descriptive Essay Using Process Genre | Exercise 3B Quiz 3B | 120 minutes (Week 6) |
| Activity 3: | | Exercise 3C | 120 |
### Selection of Strategy

Phase one continued with the selection of the strategies regarding the implementation of the module. The researcher decided to apply Bloom's Revised Taxonomy and Gagne's nine instructional events. It is recommended to use Gagne's nine events in conjunction with Bloom's Revised Taxonomy to design engaging and meaningful instruction (Northern Illinois University, n.d.). The researcher decided to apply Bloom's Revised Taxonomy to set the educational objectives. The framework uses the classification of goals of the intended outcomes of the educational process (Azuma, Coallier, & Garbajosa, 2003). This way, the learners would be assisted to achieve the lower objectives before they achieve the higher objectives in a particular lesson plan. Each lesson plan is designed with six educational objectives to guide the learners to achieve the learning outcomes involving the mental processes to remember, understand, apply, analyse, evaluate, and create.

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| Session | Activity | Formative Assessment | Time |
|---------|----------|----------------------|------|
| **Lesson 3C** - Joint and Independent Construction of a Five-Paragraph Persuasive Essay Using Genre Process | **Quiz 3C** | **minutes (Week 7)** |

| Activity 4: **Lesson 3D** - Joint and Independent Construction of a Five-Paragraph Expository Essay Using Genre Process | **Exercise 3D** | 120 minutes (Week 8) |

| Session | Activity | Time |
|---------|----------|------|
| **Session 4: Improving Grammar in Writing** | **Activity 1: Lesson 4A** - Understanding Subject and Verb | **Exercise 4A** Quiz 4A 60 minutes (Week 9) |

| Activity 2: **Lesson 4B** - Understanding Tenses and Establishing Subject-Verb / Verb Tense Agreement | **Exercise 4B** Quiz 4B | 60 minutes (Week 9) |

| Activity 3: **Lesson 4C** - Using Cohesive Devices of the Active and Passive Voice and Transitional Words / Phrases | **Exercise 4C** Quiz 4C | 60 minutes (Week 10) |

| Activity 4: **Lesson 4D** - Using Cohesive Devices of Synonyms and Pronouns | **Exercise 4D** Quiz 4D | 60 minutes (Week 10) |
Gagne's nine instructional events is a systematic learning program based on the information-processing model of the mental events in arranging specific instructional events to achieve the intended outcomes (Khadjooi, Rostami, & Ishaq, 2011). The researcher designed each lesson plan to accommodate the events to gain attention, inform students of the objectives, stimulate recall of prior learning, present the content, provide learning guidance, elicit performance, provide feedback, assess performance, and enhance retention and transfer of learning.

**Selection of Logistics**
The researcher decided to only use the PBPGM as the sole logistics for the intervention. The teaching and learning aids in the module is designed for smooth execution of the entire sessions of the module. The idea is to create a cultural tool in which the teacher is the human mediator, and the module is the symbolic mediator to scaffold and mediate the teaching and learning process. Regarding using ICT, it is impractical as the research location has a low Internet connection and ICT facility such as an LCD projector is not available.

**Selection of Media**
The researcher designed the module by combining a set of different media. The module consists of texts in the form of reading notes with a graphical presentation in the form of a mind map to assist learners to be more interested to read the notes as they get direction from the mind maps. The presentation of the local-based model texts includes coloured photographs of the people, places and cultural activities found in learners' hometowns. Some of the reading materials are presented in tabulation form to help ease learners' understanding to mediate learners' learning process. Various types of scaffolding may be utilised, including advance organisers, cue cards, concept and mind maps, examples, explanations, handouts, prompts, questions cards, hints, stories, visual scaffolds, and question stems (Alibali, 2006). The important thing is to use media that attracts learners' interest, motivate, and stimulate them to engage in the course of the module (Mohd & Ahmad, 2005).

**Draft Module**
After having completed the previous steps, the draft module was ready. The draft module was not the final product and was subject to changes. The entire module consisted of a 20-hour intervention implemented in a 10-week duration. The 10-week time frame had to do with the idea of ‘The Carroll School Learning Model’ (Carroll, 1963). In the model, aptitude was considered a variable in a foreign language. It influenced the learning of other languages and was defined in terms of speed in language learning. The aptitude (time needed to learn) was associated with the opportunity to learn, ability to understand instruction, quality of instructional events, and perseverance (the time student was willing to spend learning).

**Pilot Testing PBGGM**
The process of evaluating the PBPGM involved pilot testing it with a group of 30 ESL learners. The pilot test was aimed at achieving the recommended objectives by Mohd and Ahmad (2005) concerning the module's general quality, which includes the appropriateness of content, strategy, logistics, media, activities, sequencing of the activities, language, duration, and level of difficulty (Mohd & Ahmad, 2005). It was then followed by evaluating the content validity and sessions and activities validity.
The duration of each lesson plan was appropriate. Some of the exercises in the module were assigned as homework that gave the learners more time to complete them. As the learners were able to engage in the activities, they were able to achieve the educational objectives in the module generally. Since the educational objectives were developed based on Bloom's Revised Taxonomy, the learners showed some struggling with some of the questions that called for critical thinking and analysis. However, upon getting scaffolding from the facilitator, they began to show more ability to complete the exercises. The pilot test did not encounter any problems in recruiting the participants. All learners agreed to participate in the pilot study, and they filled in the consent form.

The PBPGM allowed learning of essay writing to ESL learners in the allocated duration of a 20-hour. It was considered appropriate because the learners would get more exposure to essay writing. Other than that, the allocated intervention period allowed the learners to attain the ability to understand instruction. That 20-hour taught the learners about the process and genre approaches, characteristics of the four genres taught in national secondary school, the five-paragraph framework, and more. The quality of instructional events involved in implementing the PBPGM also called for a duration that allowed diverse strategies to be deployed. Finally, the time allocated also had to do with the time the learners were willing to spend in applying the PBPGM. They also had other subjects to learn, so a 2-hour a week in a 10-week intervention allowed them to have adequate time to use the PBPGM.

The 20-hour intervention also had to do with the capacity of the learners to retain information gained from the PBPGM. Deichert, Maxwell, and Klotz (2015) reported that the events spaced over time result in better learning, as supported by several studies in a more typical academic setting. They revealed in their study that learners in the 8-week course retained significantly more information than learners in the 5-week course. The spacing effect produces better performance when learning is distributed over time.

**Content Validity**

Upon completing the pilot test, PBPGM underwent the validation step by the appointed panel of experts, which consisted of module experts and subject matter experts. The researcher had a face-to-face discussion with each of them. All six panels of experts were given the teacher's copy and the learner's copy of the module. They were also briefed on the research objectives and questions.

The validation step involved two instruments: the Content Validity Questionnaire of the Place-Based Process Genre Module and the Sessions and Activities Validity Questionnaire of the Place-Based Process Genre Module. The first questionnaire is adapted and also translated from Mohd and Ahmad (2005). Mohd and Ahmad (2005) developed the questionnaire based on the recommendation by Russell (1974). They indicated their degree of agreement on a scale of 0-10 to the following item:

i. The content of the module meets the target population;
ii. The content of the module can be implemented smoothly;
iii. The tome allocated for the content of the module is appropriate;
iv. The content of the module can improve learners' performance; and
v. The content of the module can improve learners' attitude toward excellence.
The calculation of the panel of experts' evaluation was based on the following formula (Mohd & Ahmad, 2005):

\[
\text{Total Score from Expert (X)} \times \frac{100\%}{\text{Maximum Score}} = \text{Content Validity Achievement}
\]

### Table 2: Content Validity of PBPGM

| No. | Item                                                                 | %   | Results |
|-----|----------------------------------------------------------------------|-----|---------|
| 1.  | The content of the module meets the target population                | 91.7| Accepted|
| 2.  | The content of the module can be implemented smoothly                | 85.0| Accepted|
| 3.  | The time allocated for the content of the module is appropriate.     | 83.3| Accepted|
| 4.  | The content of the module can improve learners' performance         | 88.3| Accepted|
| 5.  | The content of the module can improve learners' attitude toward excellence | 85.0| Accepted|

As indicated in Table 2, Item 1 received the highest evaluation of 91.7%, whereas items 3 and 4 received the lowest evaluation of 83.33%. Tuckman and Waheed (1981) state that 70% is considered a high achievement. Based on these citations, the content validity of the five items of the module was accepted.

### Sessions and Activities Validity

The sessions and the activities were evaluated using a questionnaire based on and adapted from Shah (2011). Four subject matter experts were involved in validating the session and the activities by indicating their degree of agreement for each statement on a scale of 0-10.

The calculation of the panel of experts' evaluation was based on the following formula (Mohd & Ahmad, 2005):

\[
\text{Total Score from Expert (X)} \times \frac{100\%}{\text{Maximum Score}} = \text{Sessions and Activities Achievement}
\]

### Table 3: Sessions and Activities Validity

| Session | Lesson | Activities                           | %   | Results |
|---------|--------|--------------------------------------|-----|---------|
| Session 1 | Lesson 1A | Getting to Know Process Genre: Preparation, Modelling and Construction | 92.50| Accepted |

| Session 2B | Getting to Know Process Genre: Pre-writing, Drafting and Revising | 92.50| Accepted |
| Lesson 1 | Practising Process Genre: Joint | 90.00| Accepted |
| Session | Lesson | Activities                                                                 | %   | Results |
|---------|--------|-----------------------------------------------------------------------------|-----|---------|
| 1C      |        | Construction of Text Using Process Genre                                    |     |         |
| Lesson 1D | Practising Process Genre: Independent Construction of Text                | 87.50 | Accepte |
| Overall Evaluation |                                 | 90.63 |         |
| Session 2 | Lesson 2A | Recognising the Basic Framework of the Five-Paragraph Essay Writing | 90.00 | Accepte |
| Lesson 2B | Mastering the Functions and Relationship in and between Paragraphs         | 90.00 | Accepte |
| Lesson 2C | Joint Construction of a Five-Paragraph Academic Essay Using Process Genre | 95.00 | Accepte |
| Lesson 2D | Independent Construction of a Five-Paragraph Academic Essay Using Process Genre | 92.50 | Accepte |
| Overall Evaluation |                                 | 91.87 |         |
| Session 3 | Lesson 3A | Joint and Independent Construction of a Five-Paragraph Academic Narrative Essay Using Process Genre | 92.50 | Accepte |
| Lesson 3B | Joint and Independent Construction of a Five-Paragraph Academic Descriptive Essay Using Process Genre | 92.50 | Accepte |
| Lesson 3C | Joint and Independent Construction of a Five-Paragraph Academic Persuasive Essay Using Process Genre | 92.50 | Accepte |
| Lesson 3D | Joint and Independent Construction of a Five-Paragraph Academic Expository Essay Using Process Genre | 92.50 | Accepte |
| Overall Evaluation |                                 | 92.50 |         |
| Session 4 | Lesson 4A | Understanding Subject and Verb and Establishing Subject Verb Agreement     | 87.50 | Accepte |
| Lesson 4B | Understanding Tenses and Establishing Subject-Verb / Tense Verb Agreement | 87.50 | Accepte |
| Lesson 4C | Using Cohesive Devices of the Active and Passive Voice and Transitional Words / Phrases | 85.00 | Accepte |
| Lesson 4D | Using Cohesive Devices of Synonyms and Pronouns                           | 87.50 | Accepte |
| Overall Evaluation |                                 | 86.88 |         |

Table 3 indicates that in session 1, Lesson 1A and 1B received the highest evaluation of 92.5%, whereas Lesson 1C received 90%, and Lesson 1D received 87%. In session 2, Lesson 2C received the highest evaluation of 95%, followed by Lesson 2D of 92.5%, and Lesson 2A and 2B of 90% each. All Lessons of 3A, 3B, 3C, and 3D in session 3 received the exact evaluation of 92.5%. In session 4, Lesson 4A, 4B and 4D received the exact evaluation of 87.5%, whereas Lesson 4C received 85%. Lesson 2C received the highest evaluation of 95%,
and Lesson 4C received the lowest evaluation of 85%. In general, session 3 received the highest overall evaluation of 92.5%, followed by session 2 of 91.86%, session 1 of 90.63%, and session 4 of 86.88%. All sessions were evaluated above 70% and thus has attained a high achievement (Tuckman & Waheed, 1981), and therefore, validated. Tan-Espinhar and Ballado (2017) also validated a module in Mathematics and underscored that a module must be acceptable and contents are valid.

The panel of experts’ validation of the content, sessions and activities of the PBPGM indicated that the PBPGM was a valid instrument to be used in the experiment. However, before it was used in the experiment, it had to go through another evaluation, the reliability test.

Reliability Test Procedure

The reliability test was conducted in one of the national secondary schools in the selected district. The researcher briefed the principal and the Head of the English Panel, and the discussion resulted in the approval of the reliability test. The table below illustrates the summary of the pilot test.

| No. | Item          | Remarks                                      |
|-----|--------------|----------------------------------------------|
| 1.  | Duration     | 9 days (39 hours)                            |
| 2.  | Location     | A rural national secondary school           |
| 3.  | No. of Learners | 30 (form Four)                            |
| 4.  | Instruments  | a. Reliability Questionnaire                |
| 5.  | Pilot tester | The researcher                              |

As indicated in Table 4, the reliability test that was conducted with a group of 30 form four students within the time frame of nine days in a rural national secondary school. They underwent the PBPGM intervention and at the end of the session, they assessed the module’s reliability using the PBPGM reliability questionnaire.

PBPGM Reliability Test Results

As indicated in Table 5, all of the activities from Lesson 1A to Lesson 4D attained an acceptable alpha value of over 0.70, thus confirming the module was a reliable instrument in the study (Nunnally and Bernstein, 1994; Bland and Altman, 1997; DeVellis, 2003; Fraenkal and Wallen, 1996).

| Session | Lesson | Activities                                      | Item (n) | α   |
|---------|--------|-------------------------------------------------|----------|-----|
| 1       | 1A     | Getting to Know Process Genre: Preparation, Modelling and Joint Construction | 06       | .76 |
|         | 2B     | Drafting and Revising                          | 06       | .77 |

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### Table 1: Session Activities and Alpha Values

| Session | Lesson | Activities | Item (n) | α   |
|---------|--------|------------|---------|-----|
| 1       | 1C     | Practising Process Genre: Joint Construction of Text Using Process Genre | 06     | .78 |
|         | 1D     | Practising Process Genre: Independent Construction of Text | 06     | .89 |
| 2       | 2A     | Recognising the Basic Framework of a Five-Paragraph Academic Essay Structure | 07     | .86 |
|         | 2B     | Mastering the Functions and Relationship in and between Paragraphs | 06     | .81 |
|         | 2C     | Joint Construction of a Five-Paragraph Academic Essay Using Process Genre | 06     | .77 |
|         | 2D     | Independent Construction of a Five-Paragraph Academic Essay Using Process Genre | 07     | .89 |
| 3       | 3A     | Joint and Independent Construction of a Five-Paragraph Academic Narrative Essay Using Process Genre | 08     | .90 |
|         | 3B     | Joint and Independent Construction of a Five-Paragraph Academic Descriptive Essay Using Process Genre | 06     | .91 |
|         | 3C     | Joint and Independent Construction of a Five-Paragraph Academic Persuasive Essay Using Process Genre | 06     | .87 |
|         | 3D     | Joint and Independent Construction of a Five-Paragraph Academic Expository Essay Using Process Genre | 06     | .85 |
| 4       | 4A     | Understanding Subject and Verb and Establishing Subject Verb Agreement | 11     | .93 |
|         | 4B     | Understanding Tenses and Establishing Verb Tense Agreement | 08     | .88 |
|         | 4C     | Using Cohesive Devices of Active and Passive Voice and Transitional Words/Phrases | 11     | .81 |
|         | 4D     | Using Cohesive Devices of Synonyms and Pronouns | 09     | .92 |

As shown in Table 5, all of the four sessions and the activities from Lesson 1A to Lesson 4D had the acceptable alpha value of over 0.70 (Nunnally & Bernstein, 1994; Bland & Altman, 1997; DeVellis, 2003; Fraenkal & Wallen, 1996). These statistical results indicated that the PBPGM was reliable and was ready to experiment. The present study coincides with Reyes and De Guia (2017) study, which stress that a module must obtain high acceptability and reliability rating. Ambayon (2020), who developed and tested a modular-based approach, found that the highly valid and reliable module increased students’ literature achievement.
Conclusion

DDR provides the opportunities to create learner-centred instructional tools. The process of developing PBPGM based on the needs analysis aimed to help address the low achievement in writing among rural ESL learners. The pilot study revealed that it was a feasible tool as the rural ESL learners could use it. The experts validated the content, sessions, and activities, and the reliability test results indicated that PBPGM was valid and reliable. The DDR process ascertains that the validity and reliability of modular-based materials be safeguarded before engaging in any experimental endeavour to create knowledge.

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