KEMP INSTRUCTIONAL MODEL AS AN EFFECTIVE WAY TO ENHANCE THE DEVELOPMENT OF M.Sc. STUDENTS' WRITING SKILLS

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Article information	Abstract

Teachers today confront several obstacles, including the need to hold themselves accountable for the academic success of their students and the opportunity to teach in ways that go beyond the conventional classroom by utilizing cutting-edge media and instructional technology. Nonetheless, instructional design models support educators by offering a systematic approach to efficiently integrating instructional technology and media into the classroom. Thus, this paper aims to help the sixty MSc students at the University of Technology improve their writing abilities. Data was gathered using a pre-and post-test, analyses the findings, and finds that students' writing skills have improved significantly because of applying this methodology.

نموذج كيمب التعليمي كطريقة فعّالة لتعزيز تنمية مهارات الكتابة لدى طلاب الماجستير

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الملخص	معلومات الارشفة
يواجه المعلمون اليوم العديد من العوائق، منها ضرورة تحمل مسؤولية النجاح الأكاديمي لطلابهم ، وضرورة إتاحة الفرصة لهم للتدريس بطرق تتجاوز أسلوب التدريس التقليدي في الفصول الدراسية ، وذلك باستخدام أحدث الوسائط والتقنيات التعليمية. ومع ذلك، تدعم نماذج تصميم التعليم المعلمين من خلال تقديم نهج منهجي لدمج التقنيات والوسائل التعليمية بكفاءة في الفصول الدراسية. لذا، تهدف هذه الدراسة البحثية إلى مساعدة طلاب الماجستير في الجامعة التكنولوجيه على تحسين مهاراتهم الكتابية. لقد جُمعت البيانات باستخدام اختبار قبلي وبعدي، وحللت النتائج، ووجدت أن مهارات الطلاب الكتابية قد تحسنت بشكل ملحوظ بفضل تطبيق هذه المنهجية.	

Introduction

Background:

Academic writing is a critical skill for postgraduate students, yet many face difficulties due to poor foundational skills or a lack of structured instruction.

Aim:

This study aims to develop the writing skills of MSc students by using the kemp instructional design model.

The problem:

The materials provided in the student book (headway academic skills/level 2) do not help the MSc. Students to develop their writing skills must be able to at the end of each lesson to write a well-formed piece of paragraph. Teachers should provide additional ESP resources and provide more effective learning instructions to spark students' writing talents because they have limited time and too broad of materials.

Hypothesis:

There is no significant difference between the experimental group who are taught writing with the Kemp model instructional design and the control group who are taught writing without using this model.

Objectives

Developing ESP materials in writing for MSc students of the Material Department/ University of Technology by using Kemp model-based supplementary.

Significance:

Findings will guide educators in curriculum design and instructional strategies for postgraduate writing courses.

Review of Literature

According to Gustavson and Branch (2002), instructional design is a set of protocols for creating educational and training materials in a dependable, consistent manner. It is also an innovative, dynamic, and iterative process. Morrison, Ross, and Kemp (2004:p.2) point out that instructional design models offer a methodical way to carry out the process of creating an instructional design for a particular educational project at this phase. Various models may be used to create a lesson plan that would be beneficial for the students. The Morrison, Ross, and Kemp (MRK) Model is one of these instructional models. Although Morrison is now the primary creator of this

instructional design methodology, Kemp's significant ongoing influence is still evident (Gustafson and Branch, 2002:p23). Kemp based his model proposal on the following assumption: Designing Instruction (Corbeil, 2012:p.56).

This instructional design approach is distinct from other instructional design models in that it has an emphasis on raising student performance. Furthermore, this model combines cognitive and behavioural approaches, while Dick and Carey's linear models only use behaviourist approaches (Platt, 2008:p.85). Michael Hanley (2009:p.112) states that the Morrison-Ross-Kemp model differs from some other models in three ways:

a. The learner's perspective is used to evaluate training.

b. The model approaches instructional development from general systems or even object-oriented standpoint; and

c. The model places a strong emphasis on managing the instructional design process.

In addition to these features, Akbulut (2007:p.49) highlights the circular structure of the MRK Design model as opposed to the Dick and Carey Model's linear structure. An effective instructional design needs to be both adaptive and flexible, as noted by Morrison et al. (2004:p. 6). A flawless method or model for creating instructions does not exist. Furthermore, no two challenges are precisely the same, and no two designers will tackle a problem in the same way (Morrison et al., ibid). For this reason, as the model's presenters, Morrison, Ross, and Kemp frame instruction from the viewpoint of the student rather than the subject matter, and they draw comparisons between ID and conventional design practice by posing the following six queries (Morrison et al., 2004:p.6):

What degree of preparedness is each student required to meet the goals?

a. Which teaching techniques are best suited for the goals and characteristics of the students?

b. What kind of media or other sources work best?

c. What kind of assistance is required for effective learning?

d. How are goals achieved and settled?

a. What changes must be made if the program's trial run fails to measure expectations?

Since achieving the stated aims and objectives in the instructional activities is the main objective of instructional design, these questions have to do with student learning (Isman, 2011:p.136). The four main components of the instructional design process are as   follows:

     a. whom to teach,
     b. what to teach,
     c. how to teach, and
     d. how to evaluate.

The nine elements (Figure 1) of the MRK Design Model are related to one another but not dependent on one another because of its circular structure. Put differently, there isn't a set sequence for finishing the procedure (Papadakis, 2014:p.510). The idea of beginning "where you are" is this model's strongest point, according to teachers (Gustafson, Branch, 2002).
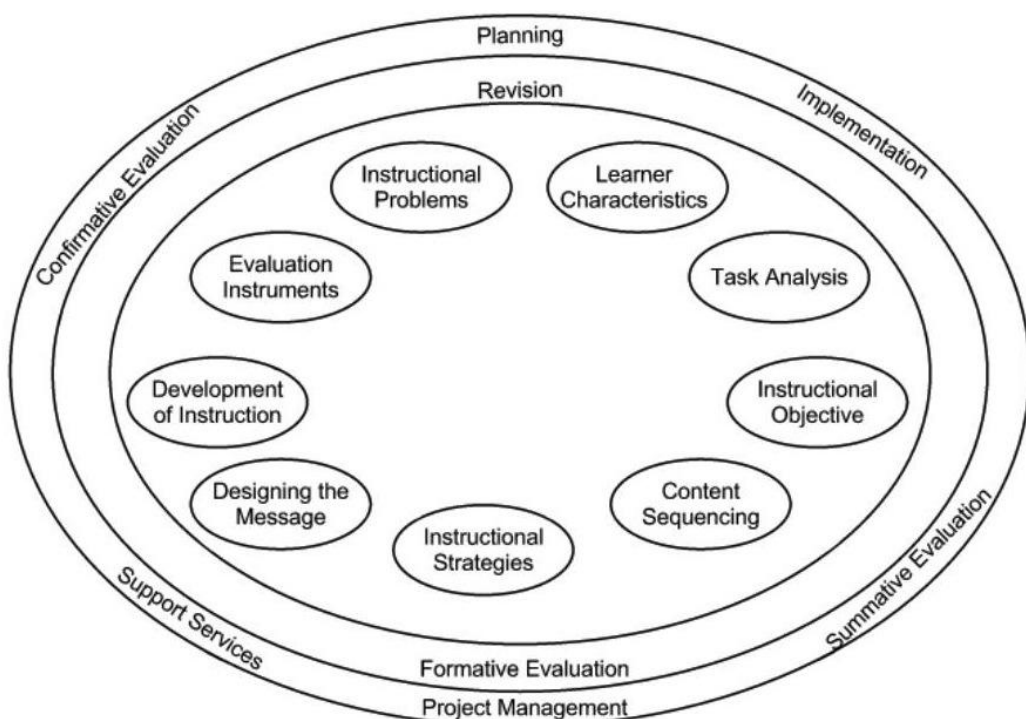
Figure 1: Morrison, Kemp, and Ross Instructional Design Model (2004)

It is evident from the model's oval form that there are no levels, stages, or arrows indicating the pieces' order. The design model's components are encircled by two outer ovals. According to Tan (2014) on page 35, the two outer oval additions to the diagram stand for the managerial and feedback processes carried out during the stages of design, development, and implementation. As a result, the designer is free to alter the pieces' placement and content at any point during the process. The planning, project management, and support services phases of any project, together with the summative evaluation phase, are all included in the outer oval. Planning is required at every stage of the project, encompassing all aspects that will support its conception, execution, and completion (Kelly, n. d.). A designer must consider the revision and formative review methods included in the inner oval throughout the whole development process. Because it is necessary to ensure that the project is proceeding as intended at every

level (Kelly, n. d.). In terms of the design model itself, while the nine components are arranged in a clockwise manner and the first one appears to identify the instructional problem, the model lacks a starting point (Fer, 2015). Conversely, Morrison et al. (2004) state that the instructional designer's role involves first describing the problem and then figuring out what abilities and knowledge are required to solve the instructional problem.

The following nine elements make up the Morrison, Ross, and Kemp Instructional Design Model (Akbulut, 2007, p. 3): Several tasks include: a. recognizing instructional design problems and defining relevant goals.

b. assessing learner characteristics.

c. identifying the topic material and examining the task elements concerning the learning objectives.

d. identifying the goals of the student; e. structuring the material in each unit to encourage logical learning.

f. developing teaching techniques to support each student in achieving the goals.

g. organizing the delivery of instruction.

h. creating assessment tools, and

i. selecting materials to aid in educational objectives.

The model's components are not arranged in a linear sequence; thus the designer is free to begin with any element. It's also possible that the designer will go back and review some of the processes that were completed (Christopher, 2009:p.56). The instructor or designer must have a solid understanding of each of the following instructional design model's components to achieve this:

Instructional problems: Before starting an instructional development project, we should ask 'Why do we need instruction?' (Morrison et al., 2004:p.7). From this vantage point, the designer selects the knowledge and/or abilities that the students must learn (Forest, 2016:p. 23). The designer can identify the instructional challenges and set goals for the program with the aid of needs assessment, goal analysis, and performance assessment.

(Obizoba, 2015:p.40). Giles (2013:p.21) addresses the following questions to identify the instructional problems:

- Which educational issues are being addressed?
- What ILOs (intended learning outcomes) are desired?

Learner characteristics: Taking the learners for whom a program is being produced into account is one of the essential components of the instructional design process (Morrison et al., 1998). As a result, the designer must investigate the personality characteristics and needs of students. Specifically, the designer determines the traits that will direct and impact the planning process at this point (Giles, 2013:p.411). The following queries are addressed by Morrison et al. (2004; p. 12) for a successful instruction:

- Why is it important to give attention to learner characteristics when planning?
- Which characteristics are most useful, and how is information about them obtained?
- What are student learning styles, and how can we accommodate them in a lesson?

Task analysis: Task analysis is a time-consuming process that establishes the material according to the acknowledged expectations of the learner or the instructional difficulty. As a result, the process of creating instructional materials relies on a clear and simple specification of the content (Morrison et al., Ibid). The following queries are addressed by Giles (2013:p. 45):

 - What kinds of media and resources best convey the instruction?

- Which kinds of content and media are most appealing to the learning audience?

- Which media does the hardware that is offered support?

Instructional objectives: The learning objectives required to achieve the instructional objectives are now specified by the designer. The instructor or instructional designer won't know what to include in the training unless the requirements are clearly stated (Morrison et al., 2004, p. 11). This part of the design model gives the designer the ability to structure the lesson, offer a framework for assessing the student's learning, and direct the students (Christopher, 2009: p.86). The instructional designer must consider inquiries like these when defining instructional objectives (Giles, 2013: p.55):

-       What   are   the   instruction's   goals   and   objectives?
- After instruction, what degree of subject mastery is required?

Content sequencing: As the instruction design aims to accomplish meaningful and effective learning, the content should be sequenced logically. A key factor in assisting the student in comprehending and learning the material is the sequence in which it is presented (Morrison et al., 2004: p.14). The optimal order for displaying the instructions must be determined by the designer. Giles (2013: p.58) addresses the following queries at this point:

-       Is   the   content   structured   for   best   learning?
- Is there a smooth transition between several educational units?

- Does the lesson progress logically from one lesson to the next?

Instructional strategies: In this stage, the designer creates an educational plan and selects the right media to impart the knowledge to the students in a relevant way. There are two different kinds of strategies: the first is a presentation that uses visual aids or hands-on experience. Additionally, there are generative techniques that use active processing to make meaning of the subject through elaboration, organization, recall, and integration.

(Obizoba, 2015:p.48). Morrison et al. (2004,p.10) address the following questions:

- What is the best way to teach a fact, concept, or interpersonal skill?
- How can I make the instruction meaningful?
- What is the best way to present the content so that each learner will master the objectives?

1. **Designing the instructional message:** Morrison et al. (2004:p.13) divide the message design process into three sections:
   a. the pre-instructional strategy, which is a technique for preparing the student for the instruction
   b. strategies for signalling text structure through words and typography
   c. discussion of the use of images and graphics in teaching

An effective message design enables the designer to engage the students with the content. Morrison et al. address the question 'How can I cue the learner to the most important information?' and Giles (2013:p.62) addresses the question 'Is there contingency media set aside?' at this phase

Instructional delivery methods: To support the delivery of instruction and meet the goals, the designer must determine which resources are required. The most popular delivery method in education is the lecture; however, self-paced and lecture-style courses are frequently combined in training programs. The crucial question is which method of delivery will be more effective (Morrison et al., 1998). The following queries are posed to the designer (Morrison et al. 2004:p. 16):

- Should I present this content in this way, or there is another way?
- Since role-playing is likely to be beneficial for my students, should I incorporate it into this unit?
- Which kind of self-study approach would be best for this subject?

Evaluation instruments: The designer must create assessment tools to assess whether and to what extent the learners met the learning objectives. Determining both the effectiveness of the course and the learning success of the students is the main objective. These two roles work together, but depending on which role is given more weight, the evaluation process's structure may change (Morrison et al., 2004:p.17). These methods are referred to as summative and formative assessment. Summative assessment techniques are used to confirm that all learning objectives are reached at the end of the course, whereas formative evaluation techniques are used to find and fix any instructional flaws during course development. (Teaching and Learning Center, n.d.).

2. Giles (2013) refers to the evaluation process with the following questions:
   - Does feedback indicate that any changes are required?
   - What changes need to be made to address deficiencies?
   - Have all necessary adjustments been made before any more improvements in instruction?

The approach is especially helpful in creating educational programs that combine pedagogy, technology, and material to provide efficient, effective, and inclusive learning. (http://www.instructionaldesigncentral.com/, n. d.).

Procedures

Research Design

Mixed-methods approach combining quantitative and qualitative data. The research and development (R and D) classification for the study is applied. There are distinct steps in each of the four key parts of the conducted design. The research technique will be explained in detail later, along with a description of each phase. The study design's four primary steps are as follows:

Step 1. Need Analysis

Step 2. Developing the Materials

Step 3. Try out

Step 4. Evaluation and Revision

Subject and Respondents of the Research

The subject of the research was the headway academic skills/ level 2 /reading and writing skills. The respondents were 60 Msc students in the Material Department. Those students were distributed into two groups, the experimental and the control group.

Table 1 Groups of the research

No.	Type	Number
1	Experimental group	30 students
2	Control group	30 students
	Total	60 students

Data Collecting Technique

Data from focus groups was gathered for this study. The writer gave out structured and semi-structured questionnaires to students to gather information from them regarding the materials that were prepared. Data were gathered from sixty pupils. The raw data table contained the information from the structured and semi-structured surveys. Descriptive statistics were then used to assess the raw data. The computed result was displayed as a table with the opinions and central tendency (mean) of the respondents.

Steps of the Research

Morrison, Ross, and Kemp's (2004, p. 17) system approach model was cited in the research and development process. Instead of being linear, the model is round. Nine factors are interconnected. Furthermore, they do not have to be considered in a particular order to implement the instructional learning systems design. The Kemp model stands out from the majority of other models because it approaches instruction from the learners' viewpoint, effectively applies the systems approach by presenting the ID process as an ongoing cycle, and emphasizes the management of the ID process.

According to Akbulut (2007:3), the Kemp model is classified as a classroom orientation teaching approach by Gustafson and Branch (2001). Teachers are involved in choosing acceptable content, tactics, media usage, and evaluation as part of the classroom focus. Teachers who are looking for instructional solutions to learning challenges will find it most interesting. However, the Kemp Model assigns members of a bigger team flexible tasks and offers both instructional and non-instructional solutions. According to Akbulut (2007:3), if models are assigned to orientation categories too rigidly, it may be argued that the Kemp model is more appropriate for a systems emphasis than a classroom.

It is possible to think of the Kemp model as a classroom orientation model because it generates an output of one or two instructional hours, whereas systems-oriented models generate an output of a full course or curriculum.

While the model is primarily utilized for creating educational materials, it may also be modified to provide learning resources for other programs, such as Vocational English, in the academic institution where the study was conducted. On the other hand, the following table describes how the system approach model was adjusted to match the updated Kemp Model:

Table 2. The Adapted Model

Kemp Model	Kemp Adapted Model
1. Define the objectives for creating an instructional program and identify the instructional issues.	Analysis of Needs
	1. Determining instructional issues and outlining objectives for creating educational resources for supplementary programs (ESP English)
2. Look at learner attributes that need to be considered when making plans.	2. Analysing the traits of learners, their learning needs, and their target needs
3. Determine topic content and evaluate task elements in relation to objectives and goals that have been given.	Building Sources
	3. Determining the topic matter and examining task elements about the objectives and goals that have been specified,
4. Specify the learner's instructional objectives.	4. Outlining the learner's educational objectives.
5. Organize the information in each instructional unit logically to promote learning.	5. Arranging the material logically inside each instructional unit;
6. Create instructional strategies that allow every student to achieve the learning goals.	6. Creating teaching strategies that allow every student to achieve the goals
7. Arrange the delivery of the instructional	7. Choose materials to assist with teaching and

message.	learning exercises
8. Create assessment tools to evaluate goals.	Try it out
9. Choose materials to assist with teaching and learning exercises.	8. Organizing the delivery of the instructive message
	Assessment and editing
	9. Assessing the produced documents to make revisions

The next four major steps in doing this research were as follows:

First Step: Need Analysis

November 2023 witnessed the administration of the needs analysis. Its goal was to collect data regarding the learning needs and targets of the learners. The data analysis served as the foundation for the 60 MSc students' English writing skill development for the 2023–2024 academic year.

To ascertain the needs, wants, and deficiencies of the pupils, a survey was carried out via the distribution of questionnaires. A casual interview was done with sixty students. The collected data was then examined.

Step 2. Developing Materials.

The initial step involved observing several references pertaining to the materials that were produced, such as the English Language Teaching (ELT) and Instructional Development theories. In order to identify the educational aims and objectives for teaching and learning English to students, the researcher examined the available resources from the MSc Headway academic skills syllabus.

A more basic version of Kemp's model was created in the process of creating the ESP materials. The resources were from the Headway academic skills/level two list of goals

and objectives. The objectives and goals were transformed into a few exercises to improve the student's communication abilities.

  Once the materials were completed, the researcher distributed the materials and questionnaires to two English teachers to gather their feedback on the first draft of the evaluation survey. To determine the size of the contents, instructor evaluations were required. In summary, the researcher begins by brainstorming ideas for what and how to provide the materials to the students. Then, the researcher lists writing-related themes, writes the materials (such as punctuation and writing mechanics), assigns assignments to the students, and finally arranges the materials.

Step 3. Try Out

  The MSc students were allowed to test out some of the developed materials to see if they satisfied their needs. The instructor demonstrated the materials using a data display. Following the students' testing of all the items, the instructor provided them with the materials in PDF format. A questionnaire asking the students about their thoughts on the materials was also supplied. The information gained from the trial demonstrated the material's advantages and disadvantages.

Step 4. Evaluation and Revision

  Determining the overall performance of the created materials, the trial data and expert opinion were then assessed and analysed. To achieve the best outcome, the final version of the prepared materials was based on the recommendations and opinions of the specialists. The following figure provides an overview of the study's procedures:
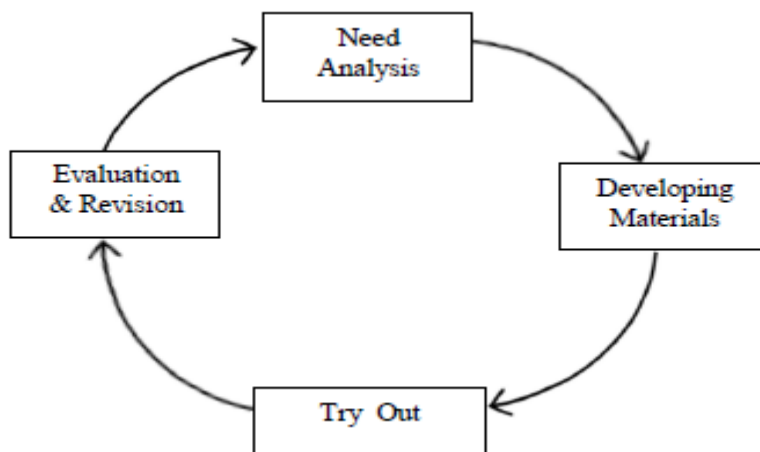
Figure 2 Steps in the material development

This strategy uses both formative and summative assessment techniques to assess students' writing about Nawroose Eid. Throughout the entire design process, formative assessment is utilized to evaluate the lesson plan using tools. The researcher makes use of test findings, student reactions, and observations. Post-tests are used in summative evaluation to gauge the learning objectives. Since the teacher is the process designer, it is his responsibility to select the appropriate tool for assessing the knowledge, abilities, and attitudes of the pupils. So, she needs to learn what aspects of the instruction the pupils enjoy or find annoying.

The instructor decides the efficacy of the design process to either enhance instruction or discontinue the program based on the evaluation results and their correlation with the learning objectives.

Findings:

After collecting the data by using a pre and post-test, the researcher came up with the following findings:

1. The pre-test's results suggest that there are no statistically significant differences among the students of both the experimental and control groups, since the mean of

the con. The group is 78.625and its SD is 7.8, while that of the exp. group is 78.25 and its SD is 6.6. The computed t -t-value is 0.850 which is found to be lower than the critical t- t-value which is 2.000 the level of significance is 0.05 and the degree of freedom is 62.

2. The post-test results, the mean score is found to be 79.593 for the experimental group and 76.531 76.531for the control group. Consequently, there are statistically significant differences between the experimental group and the control group in the scores of the post-test. This signifies that the achievement of students of the experimental group is significantly higher than the control group on the mean score of the post-test.

So the null hypothesis was rejected and the alternative one was accepted; there is a significant difference between the students who were taught writing by using the Kemp model and those students who were not.

Conclusion

The need to find a way to support students in learning and honing their writing abilities more successfully led to the beginning of this work. According to the study, the MRK model generally encouraged effective instruction since it is a flexible, nonlinear process with autonomous components that nevertheless function as a system. Because the MRK model is classroom-oriented, it appears suitable for educators or designers who are looking for an innovative approach to teaching rather than those who are looking for a step-by-step, linear instructional design. This approach can be helpful for instructors if they are educated to utilize it properly, even though its implementation shows that it needs a limited amount of time and money.

Recommendations:

- Expand the use of the Kemp Model in postgraduate curricula.

- Provide training for educators in instructional design.

- Future research should explore cross-disciplinary applications and longitudinal effects.

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