To kill or not to Kill: A Theme-based Instruction in Decision Making for Military English Learning

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ABSTRACT: This study aims at helping cadets learn military English (ME) by using decision making (DM) about "to kill or not to kill" as a theme and infusing the theme-based instruction with gamified learning so as to evaluate cadets' English learning performances with B. S. Bloom's Taxonomy of Educational Objectives. Sixteen college-level cadets are required to perform many tasks in the course. The English teaching and learning tools include vocabulary tests, vocabulary presentation, a gamified learning platform of Kahoot, and role-plays. In the course, the teachers use a film named "Fury" as a text and conduct discussion about the theme. The cadets discuss how they would react in four situations picked out as topics from the film so as to decide whether to kill or not to kill people in the battlefield. The research result shows that the theme-based instruction enhances the participants' military English; their ME vocabulary tests regarding the concepts of DM have reached significant improvements.

KEY WORDS: military English, theme-based instruction, decision making, gamification, QR codes, Taxonomy of educational objectives

I. INTRODUCTION

In Taiwan's military schools, English education plays an important role. The English training materials refer to American Language Course (ALC) and English Comprehension Level (ECL) tests, which are counted as military English (ME) and treated as the only US government-certified vehicle to evaluate the military personnel's English listening and reading proficiency. Even when the present English course for the cadets under study includes ECL tests for all cadets and ALC for juniors and seniors, the cadets could hardly get accessed to the situation where ME terms are used. Thus, the ME course has to expose cadets to a military theme so as to comprehend the context of the English words. In this study, the military English course tries to adopt a theme-based instruction (TBI) to help cadets form concepts of decision making (DM) by discussion about the topics of killing certain people in the battlefield. According to Kiziltan & Ersanli (2007), themes in TBI refer to the chief concern that forms the language curriculum, and the language teacher rather than the subject specialist takes charge of teaching content. Moreover, to satisfy the various needs of English as Foreign Language contexts, the course with TBI is arranged around a theme or a topic instead of a subject. By watching a film named *Fury*, cadets are immediately put into the military and English as Foreign Language context and conducted to ponder over the theme .D rawing upon the Taxonomy of Educational Objectives, better known as Bloom's Taxonomy, this military English course delivers instruction and assesses the cadets in terms of the six levels of Bloom's taxonomy of cognitive learning objectives: knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom, 1956).

To examine the current English education for cadets, the scope of ME learning is limited in the lower-order thinking, which includes the fundamental two levels of cognition: knowledge and comprehension. The teaching content of this course under study contains historical background, weaponry, logistics, orders, ranks and units, as well as tactical maneuver. To achive the two levels, a game of Kahoot is used to help cadets learn ME vocabulary in competition and with fun. However, without setting learning in real military situation demanding battlefield situation awareness, humanity concern and decision making, the higher-order thinking such as application, analysis, synthesis, and evaluation would not occur. Therefore, vocabulary presentation generated into QR codes and role plays are adopted. The following research questions were addressed:

1. Through discussions about and instruction in the theme, do the cadets use the concept of DM to decide whether to kill certain people or not in the battlefield?
2. Through the activities of playing Kahoot and having vocabulary tests, do the cadets grow in the lower order of Bloom's taxonomy of cognitive learning objectivities in ME learning?
3. Through the activities of ME vocabulary presentation and role plays on decision making, do the cadets develop the higher order of Bloom's taxonomy in ME learning?
4. With the theme-based instruction and gamified learning, do the cadets learn ME vocabulary?

II.   LITERATURE REVIEW

This study applies a theme-based instruction approach to military English learning and construction of battlefield decision making concepts. In this section, a review of literature on theme-based instruction and Bloom's Taxonomy is made.

Theme-based instruction: Under the broader model of the content and language integrated learning (CLIL) or the content-based instruction (CBI), theme-based instruction (TBI) is one of the approaches which combine content learning and language teaching goals by shaping a greatly contextualized language learning environment (Wesche & Skehan, 2002). TBI involves "a language course in which the syllabus is organized around themes or topics...language analysis and practice evolves out of the topics that form the framework for the course" (Richards & Rodgers, 2001, p.216). Unlike traditional language instruction, the selected themes or topics in TBI are the content from which teachers derive language learning activities (Osman, A. & Jusoff, 2009).

For formulating the content resources and choosing appropriate activities to interpret TBI, Stoller and Grabe (1997) outlined the Six T's Approach (pp.5-7) as a systematic framework:
1. Themes are the main ideas that set up essential course units. They are selected due to the appropriateness to students' "needs and interests, institutional expectations, program resources, and teacher abilities and interests" (Stoller & Grabe, 1997, p.5).
2. Texts are content resources covering both written and aural materials on which the design of theme units are founded. They are selected according to students' interests, language proficiency, life experiences, and so on.

3. Topics are "the subunits of content which explore more specific aspects of the theme" (Stoller & Grabe, 1997, p. 5). Generally, they should be "organized to generate maximum coherence for the theme unit and to provide opportunities to explore both content and language" (Stoller & Grabe, 1997, p.5).

4. Threads are defined as rather relatively abstract concepts that provide natural means for linking themes" (Stoller & Grabe, 1997, p. 6). They serve to review and recycle important content and language focus across themes, and to intensify learning strategies.

5. Tasks are the basic units where activities and techniques are adopted to teach content, language, and strategy, such as extracting main idea and information from the texts, solving problems, and doing critical thinking.

6. Transitions are "explicitly planned actions which provide coherence across tasks within the topics. Transitions create links across topics and provide constructiveness entrees for new tasks and topics within a theme unit" (Stoller & Grabe, 1997, p.7).

TBI is highly potential because it first creates a meaningful conceptual framework for content learning and effective language acquiring (Peregoy and Boyle, 1997), then appears interesting and relevant to life experience (Freeman and Freeman , 2006), third offers learner-centered and cooperative activities through discussion within a group, and lastly gives a language-rich learning environment. The six T's approach in this research would be explained in the section of instructional design.

Military Decision Making: Senne and Condon (2007) claim that the decision makers include the infantry on the front line, the intermediate force managers, and the high-level theater commanders. Higher levels of decision makers must consider more situations, collect more information, and perform more analyses. They have to think of any alternatives for course of actions. But all these tasks would not necessarily bring a bright consequence. Although they may target at the same goal, their "horizon of expectations", to borrow the idea of Hans Robert Jauss (1982), influences their method of DM.

As Bester, Phil, and du Plesses (2015) state, the decision or command of the superior might involve the issue of legality and morality. According to the manual for the Law of Armed Conflict (LOAC), soldiers have a duty to obey the superior's lawful orders. Disobedience might commit a war crime. On the contrary, an order to commit a war crime is unlawful. However, soldiers nowadays can accept personal responsibility for their actions, namely, an apparent illegal order could be refused. There are indeed some circumstances that soldiers should disobey a lawful or unlawful order.

Confronting the challenge, the military leader may go through a typical military decision-making model (MDMM), which contains six steps:

1. Define the problem
2. Identify the object of the decision
3. Analyze the situation
4. Identify and assess the alternatives

5. Decide on the best course of action
6. Implement the plan and evaluate the results

In the film, four situations serve as the challenge for the cadets to decide whether to kill or not to kill the persons with special identification: the boy scout, the corpses, the prisoner of war, and the heavy odds. The decision involves both the issues of legality and morality.

Bloom's Taxonomy: Bloom's Taxonomy of Educational Objectives is collaboration by the Committee of College and University Examiners to help instructors design testing materials which more precisely estimate their curriculum goals. The authors planned to publish three independent volumes for cognitive, affective, and psychomotor domains, but the volumes comprising affective (Krathwohl, Bloom, & Masia, 1964) and psychomotor (Simpson, 1966; Harrow, 1972) domains "had much less impact" (McLeod, 1992, p. 576) on course design and evaluation. Bertucio (2017) reminds that some scholars worried about that "separating objectives into cognitive, affective, and psychomotor domains might lead to a fragmentation and atomization of education purposes such that the parts and pieces finally placed into the classification might be different from the more complete objective with which one started" (Bloom 1994, p. 3).

Bloom et al. (1956) formed the taxonomy in a hierarchy of six more and more complex cognitive levels: knowledge, comprehension, application, analysis, synthesis and evaluation. Based upon this taxonomy, different taxonomies of learning have been generated. Anderson and Krathwohl (2001:100-102) revised the noun aspect in the original cognitive domain into a verb aspect: remember, understand, apply, analyze, evaluate, and create. However, it was criticized as the most catastrophic structure in education (Case, 2013). Case points out that "it is unnecessary to assess for a 'lower order' outcome when there is a more encompassing 'higher order'" (p.1). Nevertheless, to transit the theory of assessment to that of teaching implies that the subsumed tasks should be learned before the more complex task (p.2). Case then suggests that the taxonomy restricts students' ability to think beyond a succession given (p.3).

Since the two domains other than the cognitive one as well as the revised version by Anderson and Krathwohl do not stand as sound as Bloom's original theory, this study would follow the cognitive learning objectives in the first volume. Some scholars such as Scott (2003), Adams (2015), and Birlik (2015) summarize the six levels as follows:

1. Knowledge: This is known as recalling of data (Bloom, 1956). Scott (2003) refers it as "rote learning" or "memorization"; students are expected to recall discrete input from earlier lessons, give description for a subject area, concept or term, and list information from questions (Scott, 2003).
2. Comprehension: Bloom (1956) defines this level as grasping the meaning of information. The central concepts lie in the ability to interpret, translate, classify, and reorganize information acquired. so that they learn to "incorporate knowledge into their existing cognitive schemas by which they understand the world" (Adams, 2015, p.152).
3. Application: Application means applying the concept to a certain situation (Starr, Manaris, & Stalvey, 2008). Students should be able to use knowledge, skills, or techniques in new scenarios (Adams 2015).

4. Analysis: Omar et al (2012) explains that this level requires students to subdivide the information and analyze each of it. This suggests students' drawing a relationship and assumptions, distinguishing or classifying the component parts. Birlik (2015) claims that while this level concerns both content and style, in-depth thinking is triggered.

5. Synthesis: Whether students achieve this level depends on their ability to integrate ideas or concepts by reorganizing components into a new whole (a product, plan, pattern or proposal) (Bloom, 1956). To create a new product is expected to serve a goal and to reflect the creativity (Birlik, 2015).

6. Evaluation: This level contains the act of judging, criticizing, supporting or defending own viewpoints (Omar et al., 2012). Students are asked to compare the quantitative and qualitative factors of the information and to appraise their accuracy and benefits (Birlik, 2015).

Gamification: Gamification is "the application of game dynamics, mechanics, and frameworks into non-game settings" (Stott & Neustaedter, 2013, p. 1). It encourages desired behaviors in individuals, whether they be customers, employees, or students (Christians, 2018). Different from game-based learning, it is not a game in itself but applies game elements to other contexts so as to increase user involvement, joy and loyalty. For gamified learning, such as Kahoot play in this study, gamification is a great tool to motivate students by fostering competition with a view to reaching the teaching goal. In the process of learning, gamification takes advantages of game elements such as point systems, rewards, immediate feedback loops, time pressure, and narratives (Christians, 2018). As Cassie (2016) states, the best games offer a like-minded community of players and reward experimentation, thus sustain interest and encourage risk-taking behavior or punishment for failure. Players feel challenged rather than crushed. A gamified lesson includes the same features; students are motivated to get progress in their skills while teachers and parents are motivated to reward their improvement (Borys & Laskowski, 2013). Through experimentation, students build knowledge and apply it to provoke further exploration at higher levels of cognition.

Borys and Laskowski (2013) find from the researches that "most activities in the gamified learning process are taken in reality while supported IT system is used primary for discovering and validating activities, viewing progress, and communicating and collaborating with other players" (p.821). Some scholars make a contrast between gamification of learning and game-based learning, arguing that gamification occurs only when game elements are put into a system or "game layer" which runs in coordination with learning in a non-game settings (Werbach & Hunter, 2012). However, Kapp (2012) states that other scholars include games which induce learning by using game-based mechanics, aesthetics and game thinking.

III. RESEARCH METHODS

To train the cadets' military English framed within the theme of battlefield decision making, the teachers adopt Bloom's taxonomy to evaluate the cadets' performance in learning activities such as vocabulary presentations, play of Kahoot, vocabulary tests, and role-plays. The theme-based instruction aims to examine how the cadets reach the different levels of educational objectives in learning ME and battlefield DM.

Instructional Design: The cadets receive both academic and military training since they will become officers in the future; they need to equip themselves with good military English and decision making ability, which determines triumph in battles. Using the six T's approach of Stoller and Grabe (1997) in a theme-based instruction, this research uses DM as a "theme" to teach ME and related concept in this field. The film, *Fury*, serves as a "text" to help the cadets get instant access to the audio, video, and operational "topics", which are specified as four combat situations generated from the theme, such as confronting the boy scout, the corpses, the prisoner of war, and the heavy odds. To kill or not to kill them becomes the "transition", offering coherence across tasks within the topics. The "tasks" contain watching the film, discussing the theme, sharing their views about the questions during discussions, and giving a role-play. The cadets have to put many aspects into consideration, which act like "threads", in order to judge and review important content for making decisions as well as to intensify the tactics. The consideration includes the LOAC, the humanity concern, the combat capability, as well as the disposition of the troops such as human resources, intelligence, combat and planning, logistics, and communication. Under this theme-based instruction, the instructional design started from watching a movie named *Fury*. Then, the teachers conducted a discussion about the theme of the film. The film depicts how a US Army Staff Sergeant Don Collier (nicknamed Wardaddy) leads his crewmen to execute their missions of fighting against the German troops in World War Two. DM is the critical dynamic which decides the result of battles and thus becomes the "theme" of this film. Four main situations, here regarded as "topics" of the theme, were picked out and watched again for the cadets to discuss about the theme. The theme extracted from this film is to make decisions to kill or not to kill people in the battlefield, which turns out to be the "transition" linking across the four topics according to the theme-based instruction theory. Different concerns with DM would be fully discussed for future use in a role-play. To respond to the cadets' varied argument over the theme, the teachers gave an instruction in the MDMM by Bester, Phil, and du Plesses (2015), which the cadets could refer to for the future role-plays. This would also demonstrate how they applied Bloom's cognitive process to solve the crises.

Subsequently, the cadets were divided into four groups and assigned a task to introduce fifteen ME terms belonging to various categories of orders, weaponry, logistics, as well as ranks and unit with PPT and video-clips from the film as preparation for the vocabulary tests, role plays, and their cognitive achievement. Before the presentation, the teachers demonstrated how to present military terms in the category of World War Two: to locate the assigned military terms in a scenario with both English and Chinese subtitles, to classify what category the terms were affiliated to, to collect correlated examples from different websites, to edit video clips and snapshots for showing the context and usage of the words, and finally to encourage the cadets' interaction. When the cadets tried to locate where the terms appeared, they had to watch the scenarios repeatedly. Trimming or cutting video clips for presentation, they needed to drag the timeline back and forth and set the starting and ending point. This all pushed them to listen to the words and dialogues again and again. All the PowerPoint works should be generated into QR codes so that the other classmates can easily have a review of all the terms, relevant knowledge, and the situation where they could be used. As Stoller and Grabe (1997) defined, the instructional design used three types of texts: instructor-compiled texts just like the film, instructor-generated texts as lectures, task-generated texts like discussion and presentation. As the cadets always lead a routine life with pressure and tiredness, they easily fell asleep during class. Therefore, to ensure that the cadets

learn all the ME terms instead of only the ones presented by their own groups, the teachers gamified the vocabulary review activity by quiz-based Kahoot gameplay after the vocabulary presentation. Among the seventy words from the presentation, fifty words were selected for the vocabulary review. In the game, the cadets had to match the English cloze test with the snapshot of the film carrying Chinese captions and choose a best answer. Before competition, the cadets memorized the terms in all the four presentations, which they could learn by scanning the QR codes. They then tried
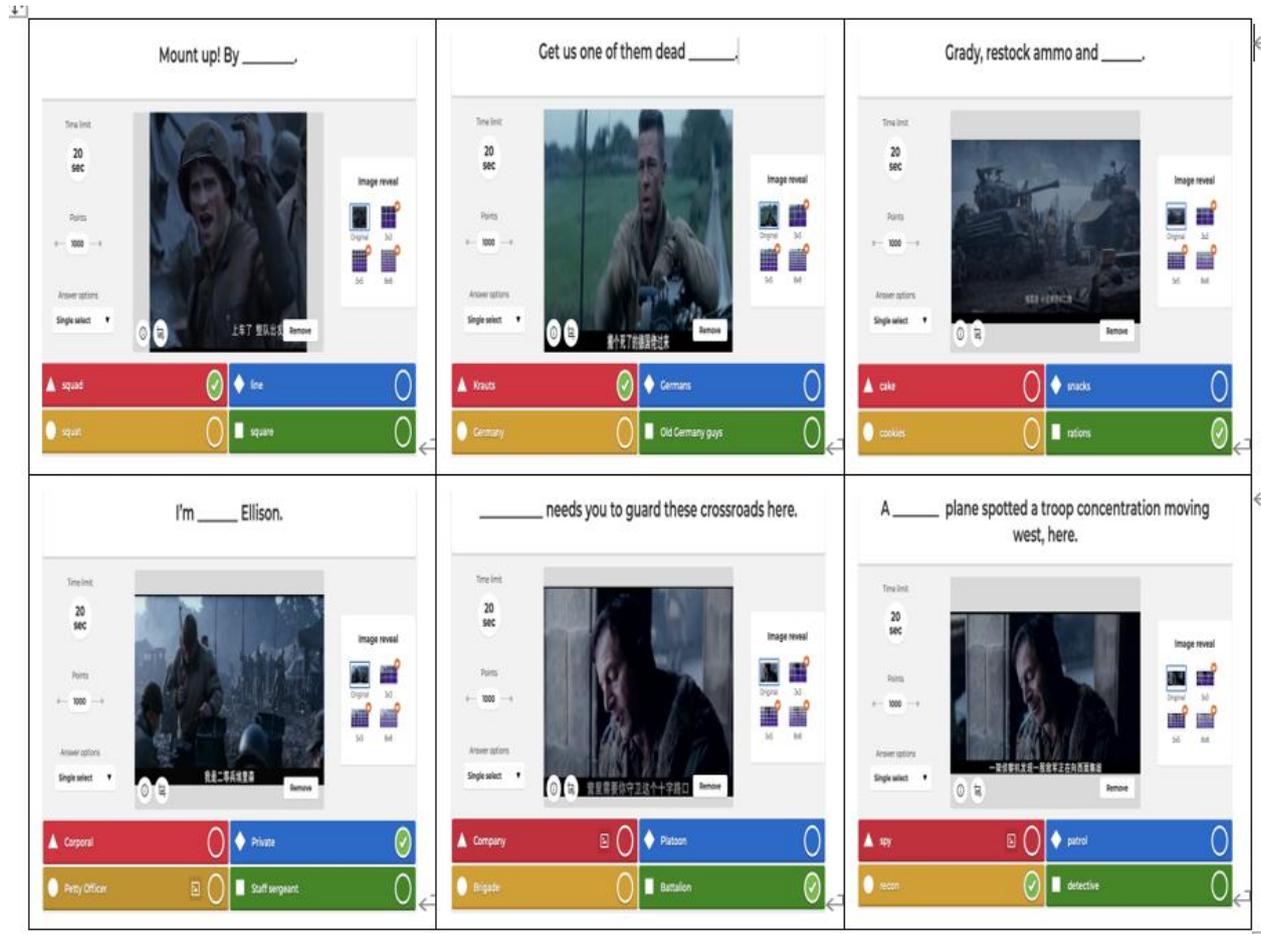
to earn points by playing the game. The question examples are given in Fig. 1.

Figure 1. Vocabulary Review Examples

The teachers rewarded the winners (getting more than 35 correct answers) with little souvenirs such as key chains with aircrafts. The play was designed for remedial teaching in the difficult words showed in the game result. It would be open until the end of the role play so that the cadets could play again and beat their own or other players' results. For the cadets, there are thirteen difficult words, which is showed in Fig. 2: "bunch up", "battalion", "ration", "squirt", "bow gunner", "solid shot", "traverse", "total war", "ricochet", "master sergeant", "come in", "Kraut", "Panzerfaust".

Question ∨	Type ∨	Correct/incorrect ∨
5 Keep your spacing, don't _____.	Quiz	13%
12 _____ needs you to guard these crossroads here.	Quiz	13%
16 Grady, restock ammo and _____.	Quiz	19%
22 Hey, _____ those Krauts on the left. Do you see them?	Quiz	19%
40 _____, squirt those guys running for that mill.	Quiz	25%
39 That's four rounds of smoke, one 23 super charge, and one 33 _____.	Quiz	25%
43 _____, four o'clock.	Quiz	25%
13 In desperation Hitler declares _____ war, mobilizing every man, woman, and child….	Quiz	25%
9 Just a _____. We're okay.	Quiz	25%
28 _____ with the clipboard.	Quiz	25%
17 _____! _____!	Quiz	31%
15 Get us one of them dead _____.	Quiz	31%
7 _____ left, 800!	Quiz	31%

Figure 2. List of Difficult Words

Finally, for making decisions in the role play, the cadets needed to analyze the current situation; they then had to learn the five categories of military terms mentioned above. Since some teaching activities also served as research tools, the combination of instructional and research process would be illustrated in the next section.

Research Design: Sixteen cadets in Taiwan served as research participants. Before all the teaching activities, they had a military English vocabulary pre-test to show their military English vocabulary pool. After the discussion about the theme of the movie and instructions in military DM, the cadets were encouraged to have critical thinking over the transition within the topics--killing people in the battlefield. The ME learning also started from a vocabulary presentation with video-clips and snapshots. After that, Kahoot playing for vocabulary reviews, vocabulary tests and English role-plays were used to elevate and evaluate the learning effect. The research process is shown in Fig. 3.
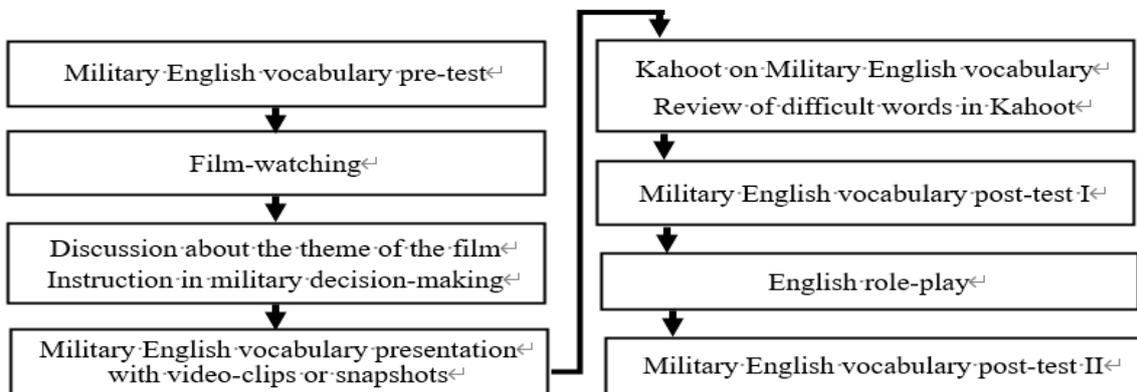

Figure 3. Instructional and Research Process

To assess the cadets' ME learning around the theme of DM, the researchers designed vocabulary presentation, vocabulary tests, and role-plays according to the cognitive levels. First, the cadets were required to give a vocabulary

presentation as preparation for the vocabulary tests. All the four groups had to perform five tasks; the evaluation rubrics and the tasks are listed in Table 1.

Table 1

Vocabulary Presentation Evaluation Rubrics

Task (20% per task)	Poor (5 points)	Fair (12 points)	Good (20 points)
(Knowledge) 1. To locate the assigned 15 military terms in the film	Locating less than 8 words	Locating 8 ~11 words	Locating 12~15 words
(Comprehension) 2. To classify the 15 military terms under a proper category	Classifying less than 8 words	Classifying 8 ~11 words	Classifying 12~15 words
(Comprehension, application, synthesis) 3. To give correlated examples & information for illustrating the terms	Giving correlated examples	Giving correlated examples & information	Giving correlated examples & information with illustration
(Synthesis) 4. To edit snapshots and video clips for offering the contexts of the terms and oral practice	Editing snapshots	Editing snapshots & video clips	Offering oral practice with snapshots & video clips
(Analysis, evaluation) 5. To encourage the peer's discussion & interaction	Encouraging discussion without preparing for questions	Designing & asking questions	Inviting & answering questions

Then, a gamified Kahoot play for vocabulary reviews was given to motivate the cadets to memorize the military terms. In the play, the vocabulary tests were in a form of a single select. After getting familiar with the answers in the Kahoot plays and after the remedial teaching in the difficult words, the cadets had to spell out the terms in the real tests. The cognitive objective is to gain knowledge of the words in the military contexts.

Lastly, role-plays were adopted to learn whether the cadets attain the higher cognitive levels on analysis, synthesis, and evaluation in terms of both English oral expression and operation of DM. The cadets might give the exact role-play on the assigned topic in English or modify the plot of the topic if they considered there was another decision to make other than the original one in the film. By this tool, the researchers intend to examine whether the participants give the movie lines fluently or create another plot with proper English. Besides, they also judge whether the cadets analyze, synthesize and evaluate the concepts of DM through different resources.

IV.   RESEARCH RESULTS

To observe the cadets' military English performance, vocabulary presentation was assigned and a vocabulary pre-test and two post-tests were given. After the researchers' instruction and discussion on the theme of decision making, the cadets presented sixty military words or phrases concerning four categories of orders, weaponry, logistics, as well as

ranks and units. Then they had vocabulary tests on fifty words selected. After that, they gave an English role-play, whose objective is to evaluate their oral performance and to see if they really learned the words.

English vocabulary presentation: By doing the five assigned tasks in the English vocabulary presentation, each group of the participants offered the peers a chance to recognize the words, comprehend the meaning, listen to the pronunciation repeatedly, as well as ask or answer questions concerning the terms; they can easily have a review by scanning the QR codes. The total score under 60 is judged as poor; that between 61and 80 is treated as fair; and that above 80 is considered as good. The evaluation result is given in Table 2.

Table 2

Vocabulary Presentation Result

Task (20%)	Group A	Group B	Group C	Group D
1	Good (20)	Good (20)	Good (20)	Good (20)
2	Fair (12)	Good (20)	Good (20)	Good (20)
3	Fair (12)	Poor (5)	Fair (12)	Good (20)
4	Good (20)	Good (20)	Good (20)	Fair (12)
5	Poor (5)	Fair (12)	Fair (12)	Good (20)
Total score	69	77	84	92

Two groups were considered as good, and two groups were judged as fair. All the groups have located the assigned sixty ME terms, which means the task was rather easy for them. They just used the searching function to find the terms in the transcript. While one term might appear in more than one scenario, they had to pick out one which suited the military context most as a preparation for the fourth task. This task warmed up the participants, they did an excellent job and treated it as a task that they could win the full score, 20 points. Next, only one group misclassified some terms, for example, group A classified "truck", "ammunition", "bullet", and "grenade" into the category of weaponry instead of logistics. In the average performance, the cadets reached Bloom's level of comprehension because they grasped the meaning of the words and categorized them into their existing cognitive schemas.

For the third task, three groups defined and introduced the terms by giving information with WebQuest. Group B was graded as poor since they only gave correlated examples for the terms. The members excused their performance by saying that reading a large amount of English information on websites was tiring, so they only introduced how to use the terms by seeking on-line sentences instead of offering prerequisite knowledge such as history, design, manufacturing, collocation, or other relevant uses about them with illustration. Although they achieved the levels of comprehension and application, they did not meet the entire demand assigned. On the contrary, group D totally met the criteria. For instance, about the term "tank", they offered the cutaway and specification to explain how a tank worked in the battlefield. Meanwhile, they also presented the history as well as several main configurations of tanks served in World War II. In general, the class attained the level of comprehension and application as they could apply

the words to other situations; but only one group reached the level of synthesis by virtue of illustrations attached.

As for task four, group D took snapshots and edited video-clips earnestly. However, they did not lead the peers to do the oral practice with the product they had made. As a whole, all the cadets could edit video-clips to show the context of the terms and upload the clips and audio files to the streaming media so that the peers could review the scene and listen to the sentence repetitively until they totally memorize and authentically pronounce the words. Here they reached the level of synthesis because they integrated the terms by reorganizing the video-clips into a new product.

In task five, all the groups tried hard to design and ask questions regarding the terms. But group B, failing to do task three well, had to show their questions and answers given in task three by surfing information online immediately in class, which made them score poorer. In general, the cadets aroused the peer's heated discussion and interaction. According to Omar et al. (2012), this means that they could not only analyze the information of the terms, draw a relationship and assumptions of the component parts, but also give or defend their own viewpoints or information collected. This task suggested that they reached the levels of analysis and evaluation. The best group's work, simplified in Fig. 4, has attained Bloom's cognitive learning objectives:

Figure 4. Simplified Best Work of Vocabulary Presentation

To conclude, almost all the groups arrived at the levels of knowledge and comprehension by classifying and locating the ME terms. The first two tasks, belonging to lower-order outcome, are more easily to be reached. For task three, although one group received a poor grade, the application level could be counted as reached. According to the cadets' self-reflection, to read English information is not easy, so task three is more difficult for them. At the synthesis level,

three groups performed well by producing slides with examples, information, and illustrations for task three as well as by giving video-clips for task four. They are interested in technology-enhanced assignment. Finally, at the levels of analysis and evaluation involving higher-order thinking, the average achievement is fair.

English vocabulary tests: Among the seventy words serving as the source of the vocabulary tests, for the category of World War II, the teachers picked terms like Krauts, Jerry, doughs on the ground, the old man, SS, and so on. In the category of weaponry, the terms selected were MGS-machine gun, grenade, anti-tank guns, HE (High Explosive), and so forth. As for the category of logistics, words such as gas (gasoline), ammo, and rations, magazine were chosen. The category of ranks and units covered terms like sergeant, colonel, lieutenant, private, division, battalion, squad, and others. Finally, in the category of order, the terms include mount up, roll up that caliber 75, by squad, marching fire, and so on. To perform a good decision making, the leader could consider the war history for reference, see if the army's weaponry, logistics, human resources such as units and ranks are enough, and lastly gave orders.

In the first hour, the cadets were given a pre-test on ME vocabulary. After the vocabulary presentation, they took post-test I. The average score increases from 36.63 to 52 points. After role-playing, the cadets were given post-test II, where the average score is advanced to 77.38 points (see Table 3). For detailed exploration of the informants' performance, the cadets were divided into three groups: the low, medium, and high achievement groups. The grouping criterion is based on the academic performance in the former semester. Although the three groups all achieve great improvement, some individual differences still need to be clarified. Take the role-play as an example, the researchers observed that the low achievers were more anxious about the transcript-memorizing and read-out-loud. However, the data indicates that the greatest improvement falls in the low achievers' performance from the pre-test to the second post-test: 42.57 (68 minus 25.43) marks. Furthermore, the researchers noticed some remarkable advances within the low achievers' performance: four cadets from Group 3 gained 50.5 points between pre-test and post-test II; the results of post-test I and post-test II can explain the big progress in the statistics mentioned above. The reason for their immense improvement might lie in their genuine enthusiasm for the instruction in DM, the weaponry systems, and the World War Two history. Moreover, during the instructional activities, they raised questions and compared what they had learned in other military courses. They endeavored to defend their opinions and were devoted to each task in the vocabulary presentation. Although they did not create another plot for the role-play, they delivered the dialogue fluently, which was attributed to the memorization of the terms. Taking advantage of each activity, they reviewed the vocabulary and thus obtained great achievement.

Table 3

The Descriptive Statistics of the Vocabulary Tests

Group	Test	N	Mean	SD
	Pre-Test	16	36.63	11.86
All Participants	Post-Test I	16	52	12.48
	Post-Test II	16	77.38	12.89
	Pre-Test	3	54	2.00
Group 1	Post-Test I	3	67.33	4.16
	Post-Test II	3	88.67	5.03
	Pre-Test	6	41	3.74
Group 2	Post-Test I	6	57	4.52
	Post-Test II	6	82.67	7.55
	Pre-Test	7	25.43	4.72
Group 3	Post-Test I	7	41.14	9.30
	Post-Test II	7	68	12.86

The distribution of scores in the three vocabulary tests are shown in Fig. 5. It illustrates that after the complete instruction, the score improves significantly. The ME vocabulary is fairly difficult for many instructors, not to mention for the cadets; this explains why the gap between the pre-test and post-test I is not very obvious. But the cadets learn much better in post-test II after role-playing because they have opportunities to use the ME terms in dialogues and to associate them with their prerequisite knowledge in the military context.
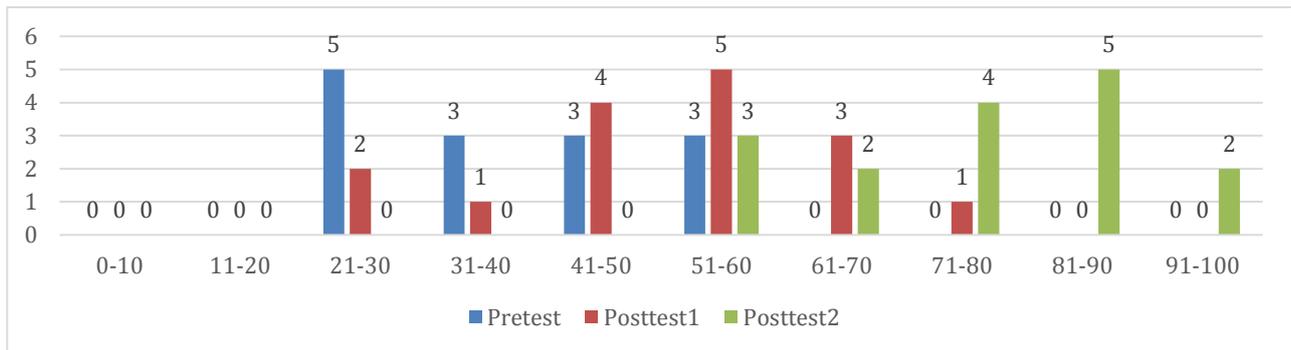

Figure 5. The Distribution of Scores in the Three Vocabulary Tests

Meanwhile, the results of Mauchly's test of sphericity in Table 4 show that p = .115 (p> .05), which represents the sphericity assumption is met and no correction is required.

Table 4

Mauchly's Test of Sphericity

Tests of Within-Subjects Effects	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon		
					Greenhouse-Geisser	Huynh-Feldt	Lower-Bound
Vocabulary Tests	.734	4.333	2	.115	.790	.867	.500

Then the researchers conducted repeated measure ANOVA for the three vocabulary test scores, as shown in Table 5. The results show a significant difference: $F_{(3,13)} = 233.596$ (p <.001). This also points out that the cadets can learn

the ME terms well through the consecutive lectures and discussion as well as the designed activities requiring preparation, rehearsals, and exercises. Therefore, the learning efficacy is enhanced.

Table 5

The Vocabulary Test Scores for Repeated Measure ANOVA

Source		Type III Sum of Square	df	Mean Square	F	Sig.
tests	Sphericity assumed	3551.167	2	6775.583	233.596	.000**
	Greenhouse-Geisser	13551.167	1.580	8578.999	233.596	.000**
	Huynh-Feldt	13551.167	1.734	7814.246	233.596	.000**
	Lower-bound	13551.167	1.000	13551.167	233.596	.000**
Errors (tests)	Sphericity Assumed	870.167	30	29.006		
	Greenhouse-Geisser	870.167	23.694	36.726		
	Huynh-Feldt	870.167	26.012	33.452		
	Lower-bound	870.167	15.000	58.011		

**p<.001

Moreover, the researchers undertook a more specific pairwise comparison showed in Table 6. The comparison analysis reveals that the scores of post-test I and post-test II are both higher than the pre-test score, and the differences are all significant in the post hoc tests (p <.001). It indicates that the English vocabulary learning is greatly effective after the whole succession of instruction. The extent of improvement between post-test I and post-test II is higher than that between pre-test and post-test I, revealing that the cadets have a better command of the professional vocabulary via the empirical learning exercise like the role play. It also conveys that the designed instructional activities can help the cadets memorize the military terminology.

Table 6

The Post-hoc Tests of the English Vocabulary Test Score

(I) Test	(J) Test	MD(I-J)	Std. Error	*p*
pre-test	post-test I	-15.375	1.630	.000**
	post-test II	-40.750*	2.344	.000**
post-test I	pre-test	15.375*	1.630	.000**
	post-test II	-25.375*	1.650	.000**
post-test II	pre-test	40.750*	2.344	.000**
	post-test I	25.375*	1.650	.000**

**p<.001

English performance in role-plays: Like Table 7 shows, the evaluation criteria reside in first pronunciation, which refers to whether the cadets imitate the characters' pronunciation, intonation, and clarity. Second, it includes fluency, which refers to the volume, speaking speed, tight plot, namely, not forgetting lines. Third, performance covers stage properties, stage manners, and showmanship. Fourth, creativity refers to using the dialogue and plot but with their own performance, or to revising or adding the dialogue, or to adapting the plot so as to offer another possible decision to make. Fifth, cooperation means well-coordination and carefully listening to the teammate in order to respond in

time. And lastly, time control unfolds whether the cadets cut and edit the plot in adequate length, and whether they perform by going through the plot smoothly.

Table 7

English Performance in Role-plays

Group	Pronunciation 20%	Fluency 20%	Performance 20%	Cooperation 20%	Evaluation 10%	Time control 10%	Total 100%
A	12	12	15	12	6	6	63
B	13	14	17	18	6	9	77
C	15	18	17	19	10	9	88
D	18	20	18	19	10	10	95

To see from Table 7, group A's English performance only passes the threshold. This group got 12 points in pronunciation and fluency dimensions respectively; only cadet B really listened to the video clip repeatedly and this benefitted him a lot. In performance dimension, they got 15 points, in which a high grade was gained in showmanship because when they forgot lines, they just used body languages and endeavored to use the words they knew to express themselves. However, the team members only memorized their individual lines, sometimes cadet A just could not catch what the teammates said and had to be reminded to continue the dialogue. It reveals that their listening ability is not good enough. The total score is 61. Going through the six steps of MDMM, the group followed the original plot because they decided that there was no alternative course of action.

For group B, cadets E and G, with upper English level, did not have bad performance in pronunciation (13 points) and fluency (14 points) because they imitated the intonation well, spoke clearly and fluently. They also created some stage properties like rifles, pistols, and a tank. Cadets F and H also endeavored to act like the characters, especially when using foul language, which aroused laughter. They got 17 points in performance dimension. For cooperation, they scored 18 marks because they divided the plot into two parts, cadets E and G with better English ability had to play prompters for each half part respectively. But the time was still not well controlled; the score is 9. The group scored 75 marks in total. Although the group members consider it immoral to kill corpses, they decided on the best course of action, that is, to kill them, after analyzing the dangerous and conflicting situation.

Group C did a satisfactory job almost in all aspects. Only cadet L recited the dialogue without listening to the video clips and spoke with a Taiwanese accent, which made them score lower marks in the aspect of pronunciation (15 points). However, taking charge of the topic regarding killing the POW, the group identified the object of the decision as illegal, so they created another plot. Their English wording is great and plot reasonable. For example, the dialogue went: "No, it's against the Law of POW, you know, we will transgress the Geneva Conventions." "Right, and we'll be sent to the Hague tribunal after the war." In the end, Wardaddy said: "I don't care about the law, the only thing I care is ending the war and ending killing people." They even made some philosophical sentences. For instance, after

comparing the law with the army's safety, he further indicated: "The law is for the peace, the reason is for the war." Each member performed well and cooperated to the play via many rehearsals. They got 17 points in performance, 19 in cooperation, 10 in evaluation and 9 in time-control. The group got 88 points in total.

Group D scored the highest marks, 95. Each member imitated the character's pronunciation, intonation, and spoke so fluently that time control was just perfect. They scored 18 marks in pronunciation, 20 in fluency, 10 in time-control. Apparently, they listened to the video clip repeatedly until they could easily and naturally give their lines. Assigned to play the topic of fighting against the heavy odds, they analyzed Wardaddy's order as lethal, thus they identified an alternative. They ran away from the coming SS battalion first and tried to ask for help from the air force. They got full marks in evaluation. They used many ME terms; the wording is precise and even poetic, and the ending is less heroic but more workable. For instance, the dialogue went: "Let's disassemble the radio device and all the gunnery and ammunition as soon as possible." "Then Norman, you have to encrypt the message with a transmitter to the air force. We need an air strike on the Krauts." "It's time to fix our home, the tank, and I hope it really helps us defeat the Krauts and we are free to go back our real homes." The teachers scored the performance 18 marks and cooperation 19 marks.

To sum up, this activity helps the cadets reach six levels on Bloom's taxonomy of cognitive learning objectives: knowledge, comprehension, application, analysis, synthesis, and evaluation. First, by observing how they performed in pronunciation and fluency, the researchers evaluated them as knowing and comprehending the English terms. Then, the cadets applied the terms which they had memorized to the dialogues and situations so as to play good roles. After analyzing the result of the four battlefield DM, groups C and D synthesized the original plot and their own decision making. They produced an organic plot, which they considered reasonable and workable. On the one hand, to fully memorize the dialogues, three groups used the teachers' strategy of listening to the video clips over and over, so they fluently delivered the dialogues and had good pronunciation by imitating the characters in the film. This proves that the activity of making video clips greatly helps them in role-playing. On the other hand, to complete the task of role-playing, group B arranged prompters to remind the teammates while group C made good use of rehearsals. Three groups had good to excellent performance in English role-plays. Besides the skill of fluently delivering the dialogues, groups C and D had advanced ability to create their own dialogues. They used simple but correct sentences, and precisely expressed their ideas of DM. In short, they had harvest in listening, speaking, and writing (for two groups) abilities.

V.   DISCUSSION AND CONCLUSIONS

Using a film as an instructor-compiled text, this paper adopted a theme-based instruction for military English learning since the theme of the film resided in decision making. The theme establishes essential topics which are linked by the transition to kill or not to kill people in the battlefield. Through the theme, the cadets grow in ME terms, the prerequisite knowledge, and English speaking ability.

VI.   DISCUSSION:

Firstly, the vocabulary presentation designed to reach Bloom's six levels of cognition shows that the cadets easily attain the lower-order outcome, which contains knowledge and comprehension, by correctly classifying, locating, and memorizing the military terms. In this study, taking advantage of technology, the cadets have a satisfactory performance in the application and synthesis levels since they not only give correlated examples and information for illustrating the terms with WebQuest but also make video-clips required. But it is observed that for the levels of analysis and evaluation involving higher-order thinking, the cadets only have fair achievement.

Secondly, the researcher's notice that the cadets score well in the vocabulary tests, the grade has increased by 40 points in average. The great achievement results from the devotion to each task in the vocabulary presentation, the gamified vocabulary reviews, the recitation of the dialogue by means of the video clips uploaded by the peers, and their patient practices for the role-plays. What is worth studying is that the advance is even more remarkable within the low achievers; among them, four cadets score 50.5 more marks in average. The reason for the improvement may lie in the fact that they are really interested in the theme-based instruction, the weaponry systems, as well as the World War Two history. The excellent result shows that Bloom's first two levels of knowledge and comprehension are much easier to reach.

Finally, through the role-plays, the cadets advance in their English-speaking ability either by delivering the dialogues or creating their own dialogues. Three groups have good to excellent performance in English role-plays. As they do a fair job in pronunciation and fluency, they are evaluated as knowing and comprehending the English terms. The contribution of the course lies in that they apply the terms to the dialogues in order to play good roles. Two groups accomplish in creating their own dialogues for DM. They produce an organic plot they analyze and evaluate as reasonable and workable by synthesizing the original plot. Performing well in this task, their listening, speaking and even writing abilities are proved. Gissi & Garramon (2018) suggested a type of important games requiring participants to have a mock decision-making after negotiations through learning-by-doing. To expand their idea, this study locates the cadets in an authentic military site to develop their knowledge and skill in a safe and game-like environment so the learning motivation and effect of English role-playing surpasses the traditional English role-plays whose content or material come from teachers or texts.

VII.   CONCLUSION:

From the good performance in all the teaching activities, the cadets are evaluated to attain Bloom's taxonomy in ME learning. The achievement results from the theme-based instruction with the computer-assisted activities such as checking up the ME terms with Web Quest, locating the terms in the transcript with the search engine, editing the video clips and watching the audio-visual files repeatedly. By virtue of technology, they not only generate and scan QR codes for ME learning but also play Kahoot games for vocabulary reviews. As all the activities are theme-based and technology enhanced, the cadets have achieved Bloom's taxonomy of cognitive learning objectives in ME. This

study is significant because it pioneers in probing cadets' learning efficacy of ME in the subject of DM. However, owing to the cadets' limited English ability of expression, this study only focuses on the acquisition of vocabulary and relevant knowledge in the military context. It is further expected to explore their growth in the theme of DM by developing the prerequisite skill of situation awareness and applying the military terms in this study to express their viewpoints about the operation of situation awareness for different situations in the battlefield.

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