The Effects of the Application of Cummins' Model on Learners' Language Use

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Abstract

Studies on language use in task-based activities have shown that there are effects of task complexity, which focus on the cognitive demands of tasks, on learners' second language (L2) use. However, the use of the first language (L1) and the effect of contextual support have been given lesser attention in these studies. This paper reports an exploration of both learners' L1 and L2 use in L2 task-based activities based on Cummins' (1981) model of contextual support and cognitive demands of tasks. The main aim of this paper is to explain how Cummins' (1981) model can be used in designing L2 tasks, and how the tasks affect learners' language use in the classroom. The study involved fourteen L2 learners, who completed four information-gap tasks, in an English as a second language (ESL) class in a university in Malaysia. Learners' language use was transcribed verbatim, analysed quantitatively, and compared to Cummins' (1981) matrix. The data revealed higher use of L2 in cognitively-demanding tasks, but language use shows no difference when the contextual support is embedded or reduced. This shows that teachers need to consider the cognitive challenge of tasks in order to encourage L2 use in task-based activities.

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INTRODUCTION

The use of tasks in second language (L2) classroom has been a wide area of research in L2 teaching. According to Richards and Rodgers (2001), the use of task-based syllabus aims to facilitate L2 learning, which contributes to its incorporation in language classrooms. Richards and Rodgers (2001) proposes the use of pedagogical tasks in the classroom, as it is an activity that has a non-linguistic goal, has a clear outcome, uses any of the four language skills, and conveys meaning that reflects real-world language use (Willis & Willis, 2007). According to Castillo (2008), classroom tasks and materials should be designed to resemble actual use of language for communication. Thus, teachers should propose tasks and texts that activates previous knowledge and provides enough background information, so that learners are able to grasp the key concepts in the tasks (Castillo, 2008).

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1.1   Task-based Language Teaching

Task-based language teaching (TBLT) is a current approach to L2 teaching that represents a strong version of Communicative Language Teaching (Ellis, 2003; Willis, 1996). It started in the 1970s when scholars argued that language interaction should teach both grammar and meaning (Skehan, 2003). Task-based approach is beneficial as it offers the opportunity for 'natural' learning inside the classroom, emphasizes meaning over form, provides learners a rich input of target language, is intrinsically motivating and learner-centered, develops communication, and can be used with other approach (Ellis, 2009).

According to Ellis (2009), in TBLT, language learning will progress most successfully if teaching aims to create contexts that consider learners' natural language learning ability. This is supported by Samuda and Bygate (2008), who suggest classroom learning to be connected to students' personal experiences, or classroom teaching to be authentic. A task focuses on meaning, and there is a need for learners to convey information, express an opinion or infer meaning, using their own linguistic and non-linguistic knowledge in order to complete the activity (Ellis, 2009). Task-based approaches require a skilful, flexible, and knowledgeable practitioner (Skehan, 1998), and involves a complex teacher role (Carless, 2008). According to Ellis (2009), the tasks must suit the proficiency levels of the students and result in appropriate L2 use; thus, teachers need a clear understanding of what a task is, and be involved in the development of the task materials.

Studies on second language acquisition (SLA) have investigated tasks from a theoretical (language processing), and a methodological (instructional design) perspective (Bygate, Skehan & Swain, 2001; Crookes & Gass, 1993; Ellis, 2000; Foster, 1998; Foster & Skehan, 1996; Robinson, 2001; Skehan, 1998; Skehan & Foster, 1997, 1999; Swain & Lapkin, 2000; Willis, 1996; Yule & Powers, 1994). However, these studies lack in looking at the role of contextual and cognitive support in tasks. Studies that support contextual use in tasks provide relevance to learners' prior knowledge and first language (L1) use in task performance. Skinner (1985) reported connections between the target language of the class, and prior knowledge and ideas already developed in the L1. Swain and Lapkin (2000) argue for the role of L2 learners' use of L1 in completing tasks. They stated that if learners are not allowed to use their L1 to carry out tasks that are linguistically and cognitively complex, it rejects L1 as an important cognitive tool in their L2 learning. Cummins (2008) claims, if students' prior knowledge is encoded in their L1, then their L1 would exist in the learning of their L2.

Thus, to ensure learners achieve successful L2 learning, teachers should consider learners' background knowledge and include it in the task. For contextual support to contribute to the learning of content, it must start with the activation of learners' background knowledge (Castillo, 2008). Although the language class aims for academic language development, teachers should not neglect what learners have in their minds so that L2 learning can become a memorable experience for L2 learners. Context and cognitive demands are also important elements for teachers to consider the types of tasks for learners (Castillo, 2008). When learners are provided with high contextual support, they should be able to perform cognitively demanding tasks successfully (Garcia, 2009).

1.2   Contextual Support and Cognitive Demands of Tasks

Cummins (1981, 2000) claims there is a relationship between contextual support and cognitive demands in communicative tasks. The constructs are distinguished by the extent to which the meaning being communicated is supported by contextual or interpersonal cues (such as gestures, facial expressions, and intonation present in face-to-face interaction) or is dependent on the amount of information that must be processed immediately through the communicative context (Cummins, 2000, 2001, 2008). "Context" is constituted by what we bring to a task (internal), and the range of supports that may be incorporated in the task itself (external) (Cummins, 2008). Context-embedded communication is more typical of the everyday world outside the classroom, but context-reduced communication reflects tasks with many linguistic demands of the classroom. Cognitively undemanding tasks consist of words that are familiar to learners, and thus require little active cognitive involvement; cognitively demanding

tasks are very open ended and subjective, and require learners to process information.

In cognitively demanding tasks, L2 learners are expected to be fluent in their academic language. They should be able to express and support opinions, formulate hypotheses, propose different solutions, describe, generalize, ask and answer informational and clarifying questions, classify, relate information, compare and contrast, explain cause and effect, interpret, infer, draw conclusions, summarize, evaluate, critique justify analyze, and persuade (Dutro & Moran, 2003; Williams, 2001; Zwiers, 2008). This means that they are able to use academic language to describe higher order thinking, complexity, and abstraction as clearly as possible.

1.2.1 Cummins' Model of Contextual and Cognitive Involvement

Cummins (1981) proposed a model (Figure 1) for designing tasks based on the range of contextual support and degree of cognitive involvement in communicative activities.
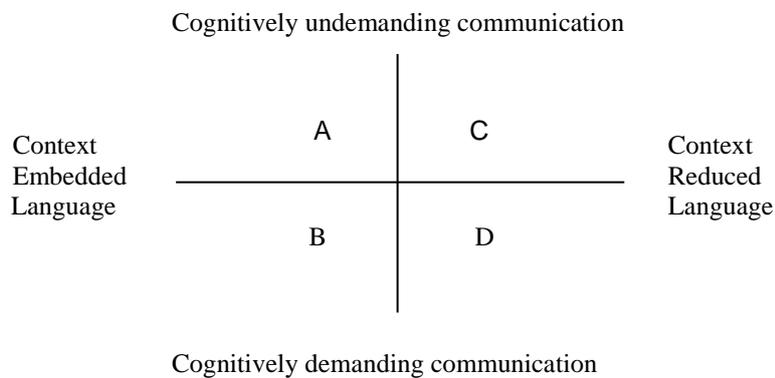
Cognitively undemanding communication

	A	C	
Context Embedded Language			Context Reduced Language
	B	D	

Cognitively demanding communication

Figure 1. Range of contextual support and degree of cognitive involvement in communicative activities (Cummins, 1981)

The model is represented in four quadrants. Quadrant A involves tasks that reflect face-to-face social conversation i.e. greeting someone. Quadrant B are tasks that require learners to process information based on the contextual support provided i.e. comparing and contrasting, seeking solutions or explaining and justifying. Quadrant C involves tasks that have less contextual support but do not involve learners in too much information processing i.e. listening to a story, copying information from a text and retelling a story. Quadrant D activities require learners to master academic functions (Cummins, 2000) by carrying out tasks that are minimally supported by familiar contextual or interpersonal cues, and require high levels of cognitive involvement for successful task completion i.e. arguing a case, interpreting evidence and evaluating and analyzing critically.

According to Cummins (2001), because some context-embedded activities are clearly just as cognitively-demanding as context-reduced activities, it is important to distinguish the dimensions of contextual embeddedness and cognitive demand. Learners may have different interpretation of what is context-embedded or cognitively demanding in the tasks, due to the differences in internal attributes such as prior knowledge or interest (Cummins, 1984). The more students know and understand, the easier it is for them to make sense of academic language, since there is internal support for understanding the messages (Garcia, 2009).

1.3 Research Objectives

The objectives of the study are two-fold:

(1) to explain how Cummins' (1981) model can be used in designing L2 tasks, and
(2) to explore how tasks affect learners' language use in the ESL classroom.

METHODOLOGY

2.1 Research Participants

The participants of this study were fourteen first year university learners (two males and twelve females) from the same program in a faculty. They were low proficiency English language learners, who scored Band 1 or Band 2 in the *Malaysian University English Test* (MUET). From these fourteen learners, ten (10) learners scored Band 1, and four (4) learners scored Band 2 in their MUET. MUET is a national examination taken prior to enrolling into public universities in Malaysia. The result is based on a six-band scale (Band 1 to Band 6), with Band 6 as the best score, and Band 1 as the lowest score.

2.2 Research Context

The study was conducted in a public university in Malaysia, as it wanted to gather insights into the problem in a local and second language context. Due to Malaysia being one of the ex-colonies of the United Kingdom, English is spoken and used as a second language (L2) in the country (Thirusanku & Melor, 2012). The national language of the country is Bahasa Malaysia. Malaysia is one of the Asian countries that adopt a bilingual system of education, which aims at establishing a balance between national and international needs and challenges manifested through linguistic educational policies (Gill & Kirkpatrick, 2013). With reference to the Malaysian education system, English is placed as the L2 (Gill, 2002). In line with the Malaysian education policy, English language is made a compulsory subject at all levels of education implying its existence "side by side with strong indigenous languages, wide use in speaking, and intranational outstanding, sometimes official functions, as the language of politics, the media, jurisdiction, higher education, and other such domains" (Thirusanku & Melor, 2012, p. 2). This explains the status of English in Malaysia as a second language (L2). In the Malaysian education system, a formal style of English language learning takes place in classrooms; and Jeon-Ellis, Debski and Wigglesworth (2005) define the L2 classroom as "a social context to which learners bring themselves and their past experiences in which they establish certain relationships and attempt to participate and engage in tasks in ways that best fit their social needs" (p. 123).

2.3 Research Procedures

The researcher became an active participant in the study, as she designed or adopted and adapted the communicative tasks to be used in the classes. The researcher became the teacher in an English language class, who met the learners twice in class. Each meeting took two hours. The learners worked in pairs, which they self-chose prior to the class.

Using a TBLT framework proposed by Ellis (2003), the tasks used in the classes were divided into three phases: pre-task, during-task and post-task. In the pre-task phase, the teacher introduced the topic related to the task. In the during-task phase, learners performed the task using their language resources and information processing skills. In the post-task phase, the learners reported the task to the class. The researcher designed two communicative tasks, which were distributed in the 'during-task' phase. These tasks were designed based on Cummins' (1984) model of designing communicative tasks. The tasks varied in their contextual support and cognitive demands in order to see how they affected learners' performance in the tasks. The tasks used in the study were information-gap tasks. According to Richards

and Rodgers (2001), information-gap tasks challenge learners cognitively in lower-order thinking.

The four information-gap tasks were 'Room Layout' (IG1), 'Spot-the-difference' (IG2), 'Chart filling' (IG3) and 'Rebus' (IG4). In 'Room Layout' task, learners were required to explain their room layout to their partner, while the partner drew the room layout based on the description. In 'Spot-the-difference' task, each pair of learners had to find the differences in the two pictures that each learner in the pair had, without looking at each other's picture. In 'Chart filling' task, students had to complete the missing activities in a chart provided to each learner in the pair, by asking each other relevant questions to fill in the chart. In 'Rebus' task, each pair of learners had to discuss appropriate words to replace the pictures in a given paragraph.

Each pair of learners' discussions of the four information-gap tasks was audio-recorded. The researcher (the teacher) observed learners when they were carrying out the tasks. She took notes and recorded them in a log book. The audio-recordings were transcribed verbatim, and analysed based on the number of words – L1 and L2 – use. The total number of words used was obtained from the 'word count' tool in Microsoft Word. The findings are then linked to Cummins' (1981) model to compare the contextual and cognitive influence of the tasks to learners' task performance.

FINDINGS

The findings of the study are presented in two sections in order to answer the two research objectives.

3.1   Task-based Language Teaching

In designing the tasks to suit the needs of the learners, the researcher considered the place of the tasks in Cummins' (1981) matrix. Locating the tasks prior to the actual tasks being carried out was not easy as information-gap tasks challenge learners' lower-order thinking (Richards & Rodgers, 2001), some context-embedded activities could be just as cognitively-demanding as context-reduced activities (Cummins, 2001). Figure 2 below provides an illustration of the four information gap tasks in Cummins' (1981) matrix.
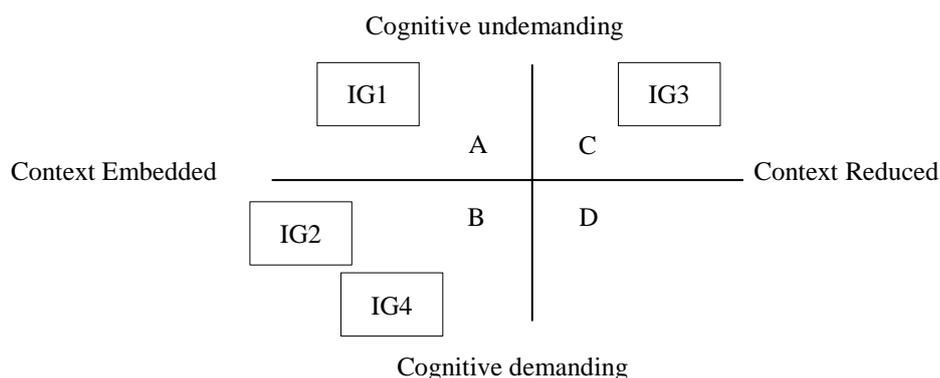

Figure 2. Distribution of tasks

In theory, each learner had their own views of the tasks, which affected the overall task locations and made it complex to match it to Cummins' (1981) model. Thus, learners' views of the tasks and their language use are gathered in order to listen to their voice. This shows that in selecting or designing tasks, teachers have to consider what the learners want so that it is not just a case of teachers planning and then assuming that learners can perform more or less well in different dimensions. Instead, they also have to

look at what the learners bring with them, their background knowledge and the approach they bring into the class. The next part details how these tasks affect learners' language use in the classroom.

3.2   Contextual Support and Cognitive Demands of Tasks

The transcribed audio-recordings show that overall, learners used more L2 (90%) than the L1 (10%) throughout all the four information-gap tasks. Within the four tasks, it was found that learners' L2 use decreased as the tasks moved from IG1 to IG4 (refer to Table 1).

Table 1: Students' language use within information-gap tasks.

Task Type	Task	No. of L1 words	Total no. of words	L1 use (%)
	IG1	236	2699	9
Information Gap (IG)	IG2	630	7543	8
	IG3	336	3464	10
	IG4	290	1124	26

When learners' language use is compared to the tasks distribution in Cummins' (1981) matrix (as in Figure 2), it shows that the higher the cognitive demands, the lower use of L2 occurs among learners; while the lower the cognitive demands, the higher use of the L2 takes place. This shows that information-gap tasks do not necessary challenge learners' lower-order thinking, as what is claimed by Richards & Rodgers (2001). In contrast, the contextual relevance of the tasks does not show a clear relation to how the contextual dimension affects learners' language use.

DISCUSSION AND CONCLUSION

The findings presented in this study show that cognitive challenge plays a significant influence in learners' language use in a task-based lesson. Learners depend more on their first language when they are given tasks that are cognitively demanding to them, and vice versa. This shows that in order to encourage learners to use the target or second language, the teacher has to design tasks that challenge their lower-order thinking. However, this would also depend on the learners, thus teachers need to consider many factors such as their social and environmental background. The data also shows that although the level of contextual support differs in the tasks, learners do not seem to show any different use of language in the four tasks.

On the whole, the findings reported in this study has shown that Cummins' (1981) model for designing communicative tasks can be useful in task design or selection. However, Cummins (2000) claims that language and content will be acquired most successfully when learners are challenged cognitively, provided that the contextual and linguistic supports or scaffolds are available for successful task completion (p. 71). Yet, this study has shown that learners' use of the second language increases when they are not challenged cognitively, regardless of the contextual support provided. This shows that although Cummins' (1981) model can be a guideline for task design, his claims on the success of learners' language does not match what was discovered in this study. The variations of the findings may be an expanded future study in similar research area in order to understand the levels of cognitive demands and learners' perceptions of their level of thinking.

REFERENCES

Bygate, M., Skehan, P, & Swain, M. (2001). *Researching pedagogic tasks, second language learning,*

teaching and testing. Harlow, UK: Longman.

Carless, D. (2008). Implementing task-based learning with young learners. *ELT Journal , 56* (4), 389-396.

Castillo, R. (2008). Issues involved in context, comprehension and content. *Latin American Journal of Content and Language Integrated Learning , 1* (1), 15-25.

Crookes, G. & Gass, S.M. (1993). *Tasks and language learning: Integrating theory and practice.* Clevedon, Avon: Multilingual Matters.

Cummins, J. (2008). BICS and CALP: Empirical and theoretical status of the distinction. In B. A. Street, *Encyclopedia of Language and Education, (2nd ed.).*(Vol. 2: Literacy, pp. 71-83). New York: Springer Science + Business Media LLC.

Cummins, J. (1984). *Bilingualism and special education: Issues in assessment and pedagogy.* San Diego, CA: College Hill Press.

Cummins, J. (2000). *Language, power and pedagogy: Bilingual children in the crossfire.* Great Britain. : Multilingual Matters Ltd.

Cummins, J. (2001). *Negotiating identities: Education for empowerment in a diverse society (2nd ed.).* Los Angeles, CA: California Association for Bilingual Education.

Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In C. S. (Ed.), *Schooling and language minority students: A theoretical framework.* Los Angeles: Evaluation, Dissemination and Assessment Center.

Dörnyei, Z. (2002). The motivational basis of language learning tasks. In P. Robinson., *Individual differences and instructed language learning.* Amsterdam/Philadelphia: John Benjamins Publishing Company.

Dutro, S. & Moran, C. (2003). Rethinking English language instruction: An architectural. In G. G. (Eds.), *English learners: Reaching the highest level of* (pp. 227-258). Newark, DE: International Reading Association.

Ellis, R. (2009). Task-based language teaching: sorting out the misunderstandings. *International Journal of Applied Linguistics , 19* (3), 1-26.

Ellis, R. (2003). *Task-based language teaching and learning.* Oxford, UK: Oxford University Press.

Ellis, R. (2000). Task-based research and language pedagogy. *Language Teaching Research , 4*, 193-220.

Foster, P. & Skehan, P. (1996). The influence of planning and task type on second language performance. *Studies in Second Language Acquisition , 18*, 299-323.

Foster, P. (1998). A classroom perspective on the negotiation of meaning. *Applied Linguistics, 19*, 1-23.

Garcia, O. (2009). *Bilingual education in the 21st century a global perspective.*Singapore: Wiley-Blackwell.

Gill, S. K. (2002). *International communication: English language challenges for Malaysia*. Serdang: Universiti Putra Malaysia Press.

Gill, S. K., & Kirkpatrick, A. (2013). English in Asian and European Higher Education. In C. A. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics*: Blackwell Publishing Ltd.

Jeon-Ellis, G., Debski, R., & Wiggleswort, G. (2005). Oral interaction around computers in the project-oriented CALL classroom. *Language Learning and Technology, 9*(3), 121-145.

Richards, J. & Rodgers, T. S. (2001). *Approaches and methods in language teaching (2nd Ed.).* Cambridge, UK: Cambridge University Press.

Robinson, P. (2001). Task complexity, task difficulty, and task production: Exploring interactions in a componential framework. *Applied Linguistics , 22* (1), 27-57.

Samuda, V. & Bygate, M. (2008). *Tasks in second language learning.* New York: Palgrave MAcmillan.

Skehan, P. & Foster, P. (1997). Task type and task processing conditions as influences on foreign language performance. *Language Teaching Research , 1* (3), 185-211.

Skehan, P. & Foster, P. (1999). The influence of task structure and processing conditions on narrative retellings. *Language Teaching Research , 49*, 93-120.

Skehan, P. (1998). *A cognitive approach to language learning* (Vol. 18). Oxford, UK: Oxford University Press.

Skehan, P. (2003). Task-based instruction. *Language Teaching , 36*, 1-14.

Skinner, D. (1985). Access to meaning: The anatomy of the language learning connection. *Journal of Multicultural Development , 6* (2), 369-389.

Swain, M. &. Lapkin, S. (2000). Task-based second language learning: The uses of the first language.

Language Teaching Research, 4 (3), 251-274.

Thirusanku, J., & Melor, M. Y. (2012). The many faces of Malaysian English. *International Scholarly Research Network*. doi: 10.5402/2012/138982

Willis, J. (1996). *A framework for task-based learning.* Harlow, Essex: Addison Wesley Longman. Longman.

Willis, D. & Willis, J. (2007). *Doing task-based teaching*. Oxford: Oxford University Press.

Yule, G. & Powers, M. (1994). Investigating the communicative outcomes of task-based interaction. *System,22* (1), 81-91.

Zwiers, J. (2008). *Building academic language: Essential practices for content.* Newark, DE: International Reading Association.