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**DESIGN-BASED RESEARCH TO DEVELOP SFL-INFORMED TBLT
INSTRUCTIONS: REFLECTION FROM ESP COURSE**

**RISET BERBASIS DESAIN UNTUK MENGEMBANGKAN RANCANGAN
INSTRUKSIONAL TBLT: REFLEKSI DARI KELAS ESP**

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Abstract

Design-based research (DBR)'s use in education research has been manifold since it provides teacher-researcher collaboration in order to improve theoretical understandings and plan an intervention to a non-optimal learning condition. Plethora of studies utilize the methodology to design and develop macro pedagogic documents, professional development programs, and refine the theoretical understanding in real classroom practices. However, its use for developing a set of instructional designs that promote critical meaning-making and reflection in English for Specific Purposes (ESP) courses is relatively scarce. The iterative cycle of DBR affords us to co-create the instructional design that utilizes some systemic functional linguistic (SFL) concepts to task-based language teaching (TBLT) in supporting students' critical meaning-making. Students report they find TBLT suitable for their pace of learning as it organizes the pedagogic tasks in a sequential manner. Even though SFL concepts to approach texts were initially seen challenging, but with explicit instruction and scaffolding, they can carry on with the demands of the tasks. This informs that SFL-informed TBLT can be also adapted to a wider variety of contexts, adapting DBR cycles.

Keyword: *DBR, English for specific purposes, instructional design, SFL, task-based language teaching*

Abstrak

Pengaplikasian Riset Berbasis Desain (DBR) dalam penelitian di bidang pendidikan sangat berkembang karena riset ini memberi ruang kolaborasi antara pengajar-peneliti untuk meningkatkan pemahaman teoretis dan merencanakan intervensi pada kondisi pembelajaran yang belum optimal. Penelitian yang menggunakan metodologi DBR sudah banyak dilakukan untuk merancang dan mengembangkan dokumen pedagogis makro, program pengembangan profesional, dan

memperdalam pemahaman teoretis perihal praktik pembelajaran di kelas. Namun demikian, pemanfaatannya dalam mengembangkan rancangan instruksional yang mendukung pemaknaan kritis dan refleksi dalam mata kuliah English for Specific Purposes (ESP) masih belum terlalu banyak dialami. Siklus berulang DBR memungkinkan kolaborasi peneliti dan pengajar untuk mengembangkan rancangan instruksional yang mengadopsi konsep Linguistik Fungsional Sistemik (LFS) pada pendekatan *task-based language teaching* (TBLT) dalam mendukung pemaknaan kritis. Mahasiswa melaporkan bahwa TBLT lebih dapat mengakomodasi laju pembelajaran karena penugasan dirancang secara berurutan. Meskipun konsep LFS untuk menganalisis teks pada awalnya sangat menantang, namun dengan instruksi eksplisit dan *scaffolding* pengajar, mahasiswa dapat memenuhi penugasan yang diminta. Temuan ini mengindikasikan bahwa rancangan instruksional TBLT dengan pendekatan LFS yang mengadaptasi siklus DBR dapat juga diimplementasikan dalam konteks yang lebih beragam.

Kata kunci: DBR, English for Specific Purposes, rancangan instruksional, LFS, *task-based language teaching*

Introduction

Teaching English for Specific Purposes (ESP) requires the instructors to accommodate both linguistic and content knowledge, which means that there should not be emphasis on one while there is an under exploration of the other. This is aligned with the concept of teaching Content and Language Integrated Learning (CLIL) that relies heavily on “the reflection upon and developing an understanding, or theory, of language.” (Moore & Lorenzo, 2015) in the delivery of specific subject matter. This concern leads us, as the instructors, to develop Task-based Language Teaching (TBLT) approach as the instructional design that highlights Systemic Functional Linguistic (SFL) concepts as a means of students’ critical meaning-making and reflection. TBLT is chosen since it supports students’ language strategies to be used to handle contextualized problems (Ji & Pham, 2020).

As there is no prescribed formula to apply TBLT in ESP context, which in this case is implemented in English for management students, we attempt to design SFL-informed TBLT instruction that focuses on supporting students’ critical meaning-making of reading and re-writing authentic texts. To assist us in designing the instruction, we incorporate Design-based research (DBR) sequence that has been promoted by (Reeves, 2006), i.e., analysis of practical problems, development of solutions in practice, evaluation research of the solutions in practice, and reflection on the produced design principles (see **Figure 1**). Besides, the collaborative and iterative characteristics of DBR (Reeves, 2006) can ensure the careful consideration on the efficacy of instructional design in each cycle, so

that the proposed instruction can also be evaluated according to students' needs in learning when it is implemented.

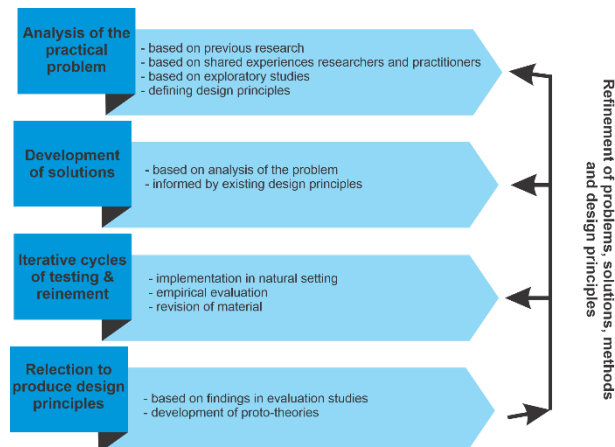


Figure. 1 DBR cycle (Reeves, 2006)

Even though Task-based Language Teaching (TBLT) has been implemented in varied educational backgrounds, writing pedagogy that is framed by TBLT has been under-researched (Yasuda, 2017). In this case, the writing pedagogy is possible to be done by demonstrating model text as the pre-task and after critical reading on authentic texts, taken mostly from online encyclopaedia. Authentic texts from encyclopaedia are used as a useful tool to not only familiarize students with terminologies they will find in their study, but also the genre function the texts serve in certain context and particular readership. (Li, 2019) promoted authentic texts for pedagogic use due to their affordances in “connecting classrooms with the real-world profession”.

The instructional design crafted depends highly on the implementation of Systemic Functional Linguistic (SFL)-informed genre-based approach (GBA) to teaching English as a Foreign Language (EFL) writing for management students. The task sequence is organized according to Task-based Language Teaching (TBLT), which enables ‘learners to learn the target language by experiencing how it is used in an authentic context’ (Yasuda, 2017), p. 581). ((Yasuda, 2017)) argues that task sequencing activates knowledge building by familiarizing students with the formal features of the target language to construct a target genre and encouraging them to understand genre realization or meaning-making process ((Ellis, 2003)). Taking SFL notions to TBLT into account, the design of instructions in this context is developed according to the five major activities that can be seen in **Figure 1**: i.e. analysis of the setting and learner needs; design of a set of specifications for an effective, efficient, and relevant learner environment; development of all learner and management materials; implementation of instructional strategies; and

evaluation of the results of the development both throughout the learning process and after the learning has been done ((Branch & Kopcha, 2014)).

Research Methods

Context of the Study

This study was conducted in first semester English for Specific Purposes (ESP) course in Management Study Program at a private Indonesian university. This course is conducted for 15 weeks and was taught by the authors. The course was carried out not only to equip students with English skills and competencies, but they were also encouraged to utilize reflective practices to train their critical thinking and meaning-making about their real-life experiences.

The one-semester curriculum was designed according to SFL-informed GBA Teaching Learning Cycle (Feez, 1998) which consists of: 1) knowledge building, 2) text modelling and deconstruction, 3) joint construction, 4) independent construction, 5) linking related texts. It needs to be kept in mind that the TLC sequence in SFL-informed GBA can be parallelized with task sequencing in TBLT, as tasks can play as an instructional framework that initially supports students to identify formal features of the target language to construct a target genre (Yasuda 2017), then shifts to genre-realization or meaning-making process (Ellis, 2003).

The macro genre of course curriculum and syllabus can only be translated after several process of designing and trying the design out, which can be guided by Design Based Research (Reeves, 2006). Methodologically speaking, DBR is used as the guiding framework in designing the TBLT syllabus. Reinking & Bradley (2008) explicated classroom learning and suggested that DBR can be useful in elucidating and advancing theories of learning process and how the process is encouraged through intervention. It is pivotal, therefore, to adapt DBR to comprehend classroom learning in context (e.g., Cobb, 2000; (Lehrer & Schauble, 2000); (Simon, 2000); (Stein et al., 1998). As the intention is to explore the possibilities to improve learning and teaching practices, the authors as researchers/teachers adopt (Reeves, 2006) steps in designing the instructional design, which consists of analysis of practical problems; the development of solutions; evaluation of the solution in practice; and reflection to produce design principles. The steps can also be seen in **Figure 1**.

Data Collection and Analysis

This study was conducted in first semester English for Specific Purposes (ESP) course in Management Study Program at a private Indonesian university. This course is conducted for 15 weeks and was taught by the authors. The course was

carried out not only to equip students with English skills and competencies, but they were also encouraged to utilize reflective practices to train their critical thinking and meaning-making about their real-life experiences.

The data sources for this study included (a) instructional documents (syllabus, materials, assessment), (b) data collected through teacher-students' interactions in recorded virtual classrooms, (c) students' classroom artefacts (students' journals, sample of students' works, and (d) teachers/researchers' reflections. The data for this study were being analyzed within the data collection period and were analyzed using thematic analysis (Braun & Clarke, 2006) to classify major themes and patterns in students' and teachers/researchers' reflections. In conducting the thematic analysis, we employed latent/interpretive themes in which there was an attempt 'to identify underlying ideas, assumptions, and conceptualizations' (Braun & Clarke, 2006), p. 84) to inform data interpretation. In addition, to guide data interpretation, we were indebted by a constructionist perspective that allows us to analyze students' experiences as socially produced and reproduced (Burr, 1995). To avoid hasty generalization in thematic analysis conducted, we make sure to follow the iterative process of thematic analysis phases, (1) read and re-read the data and note the initial ideas, (2) code the data according to their relevancy, (3) collate the codes into potential themes and cluster the data relevant to their potential themes, (4) re-check the relevance of the themes with the coded extracts and the entire data set and map the clusters, (5) themes' refinement and defining, (6) extracting samples that are relevant with the research aim (Braun & Clarke, 2006), p. 87).

Results and Discussion

Step 1: Analysis of practical problems

Evaluation of existing syllabus

The syllabus used in teaching English to management study program students has been developed based on themes that can be applied in the field of management. It covers broad range of themes, such as occupation related to management, application letters, opening new bank account, prices and products, using social media for product marketing, small-medium enterprises, and journal articles in management studies.



Supporting critical
thinking



Perpetuating passive
learning

From the syllabus scrutiny, we categorized the themes based on two classifications: the activities that support critical thinking and those perpetuate passive learning. Teachers recategorize the themes that students wish to learn for their future professional life, such as using social media for product marketing, product review, and observing the operation of small-medium enterprises. However, we, as teachers, do also need to make sure that what students wanted to learn was aligned with curriculum learning objectives, i.e., to equip and familiarize them with basic management terminologies and critically read management-related English texts.

In the semester closure discussion, students argued that learning how to analyze linguistic features in a restaurant review video was quite challenging as they used to learn English grammar without knowing the significance of grammar and language choices in social function. Furthermore, they also criticized teacher's teaching pace and thus made it difficult for them to catch up the assignment submission while at the same time they had technical issues to address to. Some of the students felt anxious about words' pronunciation while they had to record a video talking about their favorite Indonesian entrepreneurs. A few of them felt more challenged when the assignment prompted them to reflect on the topic 'Cashless Society' because they had to write something they never experienced buying something using electronic money.

To address this issue, we come to an agreement to revise and rearrange the syllabus, particularly to make it more relevant with curriculum learning agenda and students' needs and wants. The needs analysis was conducted by classroom dialog before mid-term test and before the semester ended, and also through students' learning reflection.

Grounding the theoretical framework to shape the instructional design

Before moving to the next step, the theoretical framework that becomes the point of departure is the implementation of Systemic Functional Linguistic (SFL) concepts to Task-based Language Teaching (TBLT) that will be focused on critical reading and writing skills. As a consequence, the learning activities designed for the delivery of TBLT instruction are revolved around reading text critically, summary writing, and written reflection about the project they do in the class. Considering students criticism on too quick learning pace during online learning, the syllabus accommodates task sequencing that gives space for students to learn in a step-by-step way, and for the purpose of familiarizing students with management texts and terminologies they will need to encounter in the upcoming semesters.

Step 2: The Development of initial solutions

Within the semester gap, the syllabus was re-developed based on the results of the first phase. Considering Task-based Language Teaching (TBLT) as the instructional design, we adopted the concept of pedagogic tasks and target task. Target tasks are communicative moves that students perform through language in authentic environments while pedagogic task refers to the activities and materials enacted to achieve target tasks (Norris, 2009). (Yasuda, 2017) observed that pedagogic tasks are simpler compared to the target tasks and their complexity levels should be consistently increased once the target tasks completed at the end of the course. The instructional design was structured based on the target tasks of critical reading and reflective writing into sub-tasks so that the pedagogic tasks can be sequenced to activate students' ability towards accomplishing more challenging tasks. Even though TBLT is useful to sequence pedagogical tasks, the specific treatment to train students' critical reading and writing can be mediated by the incorporation of Systemic Functional Linguistic (SFL) concepts. SFL is acknowledged by its three partite register variables of field, tenor and mode that are realized in three meta-functions of ideational, interpersonal, and textual. The training towards analyzing register and metafunctional variables enables teacher to demonstrate how texts are structured and how they function in a particular social context (Yasuda, 2017). As a consequence, every reading task is geared towards training students to direct their awareness in identifying register and metafunctional variables in texts intended to train students' gaze on analyzing the specific features of meaning-making choice they will discover in encyclopaedia genre. The portrayal of SFL framework that is embedded in pedagogical tasks design can be seen in **Table 1**.

	Principle	Applied on the developed materials
Reading texts critically	Comprehensive	- Train students to analyze three partite register and language metafunctions
	Varied teaching methods	- Different levels of activity and participation
	Sufficient dosage	- Multiple examples and exercises
	Theory driven	- Based on SFL notions - Based on TBLT concepts
	Dialogic	- Group work and discussion both synchronously and asynchronously
Design principles constructivism	Active learning	- Thinking aloud protocol (guided analysis) - Scaffolding questions
	Authentic learning	- Reading authentic texts about management issues - Writing authentic texts (e.g., responding complaint letter)
	Collaborative learning	- Joint construction - Peer assessment

Table 1 Design Principles

Taking the design principles into account, we propose tasks design for teaching and learning critical reading and summary writing guided by TBLT procedures. **Table 2** shows a syllabus draft combining reading-writing integrated learning. This syllabus design demonstrates a more focused reading tasks which are arranged according to students' academic needs and familiarizing them with management-specific vocabularies. Furthermore, the reading materials are taken from the sources that they will consult to in an initial stage of learning. In addition, the critical reading activities aims at directing students to identify the latent functions beyond the surface meaning of the texts they read. Encyclopaedia texts are thus paramount to help students find the baseline facts and more advanced

information so that the texts used for learning are not only authentic but also functional.

Week	Reading Topics	Genre of Reading	Pedagogic Tasks for Summary Writing
1	Introduction to the whole semester activity and guidance		
2	Operations Management	Investopedia Article	Pre-instructional summary writing (baseline)
3	How to write a summary		Analysis of the selected summaries on operations management in Week 2: introduction to paraphrasing (semantic change, theme-rheme transformation, nominalization)
4	Operating Profit	Investopedia Article	Paraphrasing exercise (Semantic change: synonym/hyponym/hypernym) & summarizing
5	Operating Profit	Investopedia Article	Peer-assessment
6	Operating Profit	Investopedia Article	Text modelling (analyzing the sound summary and the ineffective summary)
7	Profit and Profitability	Investopedia Article	Paraphrasing practice: semantic change and theme-rheme transformation
8	Profit and Profitability	Investopedia Article	Peer assessment
9	Profit and Profitability	Investopedia Article	Text modelling (analyzing the sound summary and the ineffective summary)

Table 2. *SFL-based TBLT Syllabus Design*

Step 3: Evaluation towards the solutions implemented

To measure the efficacy of the target tasks implemented, the intervention was orchestrated in the authors' classes. To obtain in-depth input into how students develop their genre awareness, linguistic knowledge, and writing expertise, this study incorporated triangulated inquiry of students' reflection and interview with the most active students. From the feedback and impact resulted, the materials were revised and implemented again in the upcoming weeks.

First revision of syllabus and materials

Because students mostly come from beginner to intermediate users of English, text genre given cannot be provided in a more diverse way, therefore the genre is focused on web-based encyclopaedia that provides basic information regarding management and accounting. This attempt is done due to students' lack of exposure to English articles generally, making it challenging for them to elucidate more complex topic in their field in full English. Initially the syllabus designed offered students with broad range of genres and quick pace of topic change but then after observing students' reflection and class talks, we decided to narrow them down to web articles, discussing basic topics they will discover in their future learning endeavors. Here is what Nada (pseudonym) thought about the quick pace of learning activities and the tight deadline of assignment submissions.

I hope that the time for sending assignments will be extended because learning in virtual is very difficult, the duration of the video [of the materials] that is delivered is long enough so that it takes more time to watch the explanation [of the material].

Study 1: implementation and evaluation of the revised syllabus design

The revised syllabus and materials delivered were implemented, enlightening us to re-check the initial arrangement, that was initially ambitious in providing students with different reading materials each week. This was criticized by the students as it creates learning burnout. The quick learning pace was too demanding for them, and the task sequence was too intimidating for them as it was impossible for them to grasp the meaning of each different text quickly as they need to not only understand the content but also the meaning of each paragraph in the text in the first place. Here is what Rin (pseudonym) reflects.

We need more time to grasp the meaning of the articles given. Most of us even need to read the text together and ask our seniors, particularly when the terminology given is very unfamiliar to us.

Second revision of syllabus and materials selection

From the students' reflection and the insight gained during classroom talk after the implementation of the syllabus, the design is revised, carrying only one type of genre, covering five different topics relating to management and accounting. The mono genre offered in the syllabus is meant to accommodate students' time span to understand the texts, familiarity with pedagogic tasks, critical assessment on texts' social function, and summarizing activities regarding certain target readers. Hence the depth is offered instead width in this context.

Study 2: Implementation and evaluation of the revised syllabus and materials

Students' reflection and classroom talk demonstrate a better appreciation towards the newly arranged syllabus and task sequencing. However, students find the text less fun compared to last semester's more diverse choice of multimodal materials and request to submit social media post as a part of learning activities. It is understandable since college students are in their peak of interacting and creating content on social media as their playground. For the time being, their voice is taken and noted, but the implementation of their suggestion can be translated in post task section requiring their reflecting the learning process in the form of social media posting as a means of photovoice.

Even when the students show appreciation for the teacher-researchers' attempt to take their voices into account, the task sequencing must be carefully arranged so that the core learning objective can be delivered without compromising the critical language learning agenda. Students demonstrated difficulty at first to grasp the new way of reading texts using SFL perspective of language metafunctions.

On the one hand, students can gain new insights regarding SFL approach embedded in text reading and writing activities, because it affords them to be trained to observe the texts not only on the surface level, but also beyond it. On the other hand, not all students were happy with the implementation of SFL in their reading tasks as they were not familiar to analyze the texts they read with the lens of functional approach and found it rather challenging.

Ari, Mia, Meta and several others (pseudonym) told us in their reflection that language analysis in the text was challenging for them as they thought that they needed to familiarize themselves with the way language worked and understand how language operated to achieve text's social function. The analysis is quite challenging for them because it took more time for them to understand English texts as they did not know all vocabularies in the text, so that they have to always consult English Indonesian dictionary or online machine translation.

Step 4: Reflection to produce design principles

In the initial phase of the study, TBLT is used as the instructional design and SFL approach is geared to train students' critical reading skills and thus a more comprehensive summary composition. In order to create a syllabus and instructional design that takes students' voices and perspectives into account, classroom talk, students' reflections, and interview play a crucial role. Needs analysis was conducted after teacher-researchers analyze students' wants, challenges they face during learning activities, and their wish towards next study

lesson are delivered in a friendly interaction between students and teachers in a non-threatening way. The difference between initial design and the revised design principles is demonstrated in **Table 3**.

Initial design principle	Revised design principle
Sufficient dosage	Guided and repeated similar type of activities
Authentic learning	Authentic materials based on students' input
Dialogic	Focused-group discussion

Table 3. *Design change comparison*

Guided and repeated types of pedagogic tasks are beneficial to let students grasp the core keys of observing texts, identifying three-partite language metafunctions and its significance to ensure the delivery of writing objective to the targeted readers. Since students' first language is not English, the teachers should moderate the pedagogic pace according to their needs of elucidating text's meaning.

Insights Discovered in Students' Reflection

In addition to the analysis of DBR cycle and evaluation towards the designed syllabus, this section draws on the thematic analysis of students' reflection after the intervention has been implemented. The reflection is attained from students' written reflective diary, classroom talk, and interview with several outspoken and active students in class. As suggested by (Braun & Clarke, 2019), the that reflexive thematic analysis prefer developing, constructing, and generating coding and themes rather than achieving on a certain meaning consensus from the data. As a consequence, we collaboratively construct the coding based on the theoretical underpinnings we adapt in implementing the intervention and the research purpose, i.e., to propose a design of instructions that accommodate students' critical meaning making through reading and summary writing.

In response to the tasks provided in the newly designed instructions, students' feedback covers four major themes that they could compare from the previous instructional design namely balance language and content materials, need for explicit instruction, communication delay, and flexible deadline. Students discovered major distinctions from the previous instruction, that is more understandable instruction, more scaffolding that reduces confusion, and balance between content and language learning materials. Students' reflection regarding

learning activities before and after the design intervention can be observed in **Table 4.**

Recurring themes	Example of quotation Before the intervention	Example of quotation After the intervention
Balance language and content materials	Miwa [anonymous]: <i>'We actually find learning content enjoyable, particularly when the teacher uses varied learning platform and social media, but we need more guidance on the language so that we can do the assignment with appropriate grammar.'</i>	Ahmad: <i>'the content is appropriate with our major, but it is serious text [as the text is taken from an investment encyclopaedia], we need more interesting activity. However, the language guidance helps us in understanding text making summary'</i>
Need for explicit instruction	Riri [anonymous]: <i>'It is so confusing when the teacher asks us to submit an assignment but we are left with minimal instruction'</i>	Ahmad: <i>'The teacher explain that learning activities are based on task-based learning, and it is easier to follow because the activities are designed in a step-by-step manner. We can develop understanding from scratch, and the instruction is clearer now.'</i>
Communication delay	Ahmad [anonymous]: <i>'learning virtually, particularly English, is difficult, particularly when it is done asynchronously, because we can't consult and get an immediate response right away.'</i>	Nada: <i>'even though we do activities through video recorded instructions, the assignment can be easily followed as teacher provided with detailed explanation in the video. Teacher's</i>

Students needs are considered in the design development, however not all can be taken as the sole source of in-class management, since students are scaffolded in a step-by-step and careful manner to complete pedagogic tasks and thus achieve learning outcomes. This applies to students' wish to make deadline flexible whose possibilities of loose in-class management which results in the compromised learning outcomes.

Conclusion

This research demonstrated how TBLT as the instructional design to teach ESP in management study program can be geared with SFL notions to train students' critical reading, and thus effective summary writing. The syllabus is designed as the guide for a one-semester course, focusing on not only developing students' critical reading but also training them to look at texts in a deeper level and implementing new ways of using language to answer the needs of the genre. SFL-informed TBLT can also serve as a conscious attempt to manipulate genre-specific meaning-making options and to strategically deploy linguistic solutions to meet the communicative goal of the writing tasks. The findings imply that SFL has the potential to help students enhance their writing, as has been demonstrated by SFL scholars (e.g., Byrnes, 2009; Ong, 2017, Yasuda, 2017).

The thematic analysis on the data collected along the cycle conclude students' needs emerge in the data set and they are considered in the development of instructional design. The most recurring themes portray students' wish on more moderate learning pace and pedagogic tasks, teachers' understanding of the technical problems during learning, balanced language and content materials, and more scaffolding in language learning. However, students' need to make deadline flexible cannot be necessitated since the task sequencing has been designed to serve students' stages of learning development.

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