On Optimal Conditions in Setting Up Tasks for the Elementary Classroom: A Case Study of Two Classes[*]

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The purpose of this study is to investigate the optimal conditions for designing tasks appropriate to the elementary classroom based on the correspondence with the national curriculum, integration among four skills (listening, speaking, reading, and writing), authenticity, and interactivity. For this study, two primary English teachers volunteered to participate in the case study conducted in the spring semester of the 2012 school year. Each class observed was composed of 29 and 30 sixth graders (12-year-old learners). Data were collected through classroom observation and lesson plans. Optimality theory was used to analyze data from the lessons. From the findings, the overall ranking of constraints is Curriculum ≫ Integration ≫ Authenticity ≫ Interactivity. It is also shown that for teacher 'L', the tasks such as 'guessing game', 'photo of me', and 'role play' were appropriate to help students ask questions and give reasons for their choices. As for teacher 'C', the tasks such as 'hand spans', 'transport survey', and 'picture telling' needed to be considered in order to help students understand and write comparative sentences.

[optimality theory/authenticity/interactivity/constraint]

I. INTRODUCTION

Tasks are defined in terms of what the learner will do in the classroom rather than in the outside world (Nunan, 1990: 6). 'Task' is therefore assumed to refer to a range of

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work plans which have the overall purpose of facilitating language learning -- from the simple and brief exercise type, to more complex and lengthy activities such as group problem-solving or simulations and decision making (Breen, 1978: 23).

Tasks need to be designed to lead learners to develop language effectively based on the national curriculum. The curriculum guides the method of implementing tasks appropriate to classroom situations. Recently, the National Examination Ability Test (NEAT) placed an equal emphasis on the improvement of the four skills. Negotiated comprehensible output (speaking and writing) is being considered as an essential factor. In this respect, it is necessary that teachers design tasks based on the optimal condition considering Swain's comprehensible-output hypothesis.

Long and Porter (1985) suggests that small-group work in the language classroom provides the optimum environment for negotiated comprehensible output. Group work increases the opportunities for learners to use the target language, improves the quality of student talk, allows greater potential for the individualization of instruction, and promotes a positive affective climate. Group work provides an environment which increases learners' involvement and motivation. Through group work, teachers can negotiate meaning through the discussion work such as clarification requests, confirmation checks, and recasts. Group work is significant in designing tasks in terms of the following: characteristics of English education, learner's need and social need, correspondence with the national curriculum, and equality and integration among the four skills. All these elements need to be considered systematically.

What is the optimal condition for improving comprehensible output in designing tasks considering learner's need and social need, correspondence with the national curriculum, equality and integration among four skills, and characteristics of English education? Optimal conditions need to be studied in designing tasks within the framework of McCarthy and Prince's (1993) Optimality theory (OT). Therefore, the purpose of this study is to investigate the optimal conditions for designing tasks appropriate to the elementary classroom based on learner's need and social need, correspondence with the national curriculum, integration among the four skills, authenticity, and interactivity.

II. THEORETICAL BACKGROUND

McCarthy and Prince (1993) distinguished between two types of constraints, *hard* constraints and *soft* constraints. *Hard* constraints may never be violated (in any language), but *soft* constraints may be violated (in some languages). *Soft* constraints can be further differentiated as follows:

(1) High: cannot be violated.

    Intermediate: can be violated, but only in particular circumstances

    Low: can be freely violated, in all circumstances

Within OT, high-ranked constraints are strict and are generally not violated. Low-ranked constraints are not very limited and are often violated. During acquisition, learners must learn the constraint ranking for the language being learned (Stemberger, 1996).

    According to OT, the optimal candidate from an infinite number of candidates is chosen. Four basic principles are as follows:

(2) (a) Violability

    (b) Ranking

    (c) Inclusiveness

    (d) Parallelism

(2a) says that constraints are violable but violation is minimal. In (2b), constraints are ranked on a language-particular basis. Inclusiveness in (2c) means that the constraint hierarchy evaluates a set of candidate analyses that are admitted by very general conditions of structural well-formedness. In (2d), the best satisfaction of the constraint hierarchy is computed over the whole hierarchy.

    Optimality theory is the model of interaction between constraints. In addition to the constraints, there are two mechanisms such as GEN and EVAL functions. The GEN function generates a large number of possible output candidates. The EVAL function chooses the candidate that is most optimal.

(3) a. GEN (in_i) --> $\{cand_1, cand_2, ...\}$

    b. EVAL $(\{cand_1, cand_2, ...\}) = out_{real}$

      (GEN=Generation, EVAL=Evaluation, can=candidate, in=input,

       out=output)

                              (Prince & Smolensky, 1993, 2004)

Applying OT to the national curriculum, the GEN function can generate candidates within the curriculum. For example, the function can produce an infinite number of candidates according to input information of in_i (communicative function, language form, vocabulary, etc). The candidates are evaluated through the EVAL function because the candidates are included in the national curriculum. The EVAL function serves to evaluate the appropriateness of the optimal output as the content of the curriculum. The candidate that is optimal is the candidate that violates constraints that are as low-ranked

as possible.

In choosing tasks based on OT, various constraints such as learner's need and social need, the national curriculum, integration among the four skills, and the characteristics of English education need to be considered. That is, although the GEN function generated the candidates for tasks, the EVAL function applies the constraints to the candidates and chooses the optimal tasks. In this respect, the most important thing in OT is to set up constraints and determine the hierarchy of the constraints. Take, for example, constraints of A, B, and C in choosing tasks.

TABLE 1
Application of EVAL Function to Candidates

	Constraint A	Constraint B	Constraint C
☞ Candidate 1		*	*
Candidate 2	*!	*	

The GEN function generated two candidates. The first candidate violates constraint B and C, and the second candidate violates constraint A and B. The overall ranking of constraints is A≫B≫C. Constraint A is a higher constraint than constraint B, and constraint B is a higher constraint than constraint C. Scanning through the table, we see that the second candidate violates the highest constraint. Thus, this candidate will be eliminated from successful candidates as the exclamation mark illustrates. Since the first candidate violates constraint B and C, but does not violate constraint A, the evaluation process will choose this candidate as the optimal form.

The EVAL function includes H-function which evaluates the relative harmony of the candidates. H-function checks relative harmony among the candidates in designing and choosing tasks.

TABLE 2
Application of H Function to Candidates

	Constraint A	Constraint B	Constraint C
☞ Candidate 1	*		
Candidate 2		*	*
Candidate 3	*	*	

There is no ranking among constraints. The second candidate violates constraint B and C in the table and the third candidate violates constraint A and B. Since the first candidate

violates constraint A, but violates only constraint A, unlike the second candidate and the third candidate, the evaluation process based on H-function will pick it as optimal form.

III. METHOD

1. Participants

The study was conducted in the spring semester of the 2012 school year. In this study, two English conversation teachers volunteered to participate. The participant's teaching experiences were five years and seven years respectively. Each class observed was composed of 29 and 30 learners who were sixth graders (12-year-old learners). They have been learning English for almost four years within the 2008 Revised National Curriculum. As outlined by the curriculum, English focuses on developing the ability to understand and express basic language used in everyday life. English education in elementary school also considers the character of an elementary school student who has strong curiosity.

2. Materials

Teachers have been designing lesson plans based on the textbooks involving diverse communicative activities such as songs, chants, games, and projects. They have been teaching the activities according to the level of learners. Communicative language teaching, which is chiefly being used in the elementary classes, was a radical departure from the PPP (presentation-practice-production)-type lessons which had tended to dominate language teaching.

2.1. The presentation stage

Generally speaking, in the presentation stage, learners recognize the meaning or concept of new vocabulary, communicative function, and language form, by practicing them. This stage includes activities like matching the spoken words or sentences with the object. This stage represents an understanding of the new language by answering questions repeatedly. Tasks performed in this stage by two teachers are as follows:

(4) Look and think (L teacher)
T: Who do you see in the picture? Where are they?
Ss: Mina, Brian, and a man. They are in the amusement park.

T: Let's take a guess. In the first picture, who likes the roller coaster? What would she
   say?
Ss: Mina likes the roller coaster. "Let's go, Brian"
T: How does Brian feel?
Ss: Scared. / Nervous. / Unhappy, etc.

(5) Listen and comprehend (L teacher)
T: Let's find out what happened to Mina & Brian.
T: How did Brian feel?
Ss: He was scared.
T: What did the man say?
Ss: Take off your cap.
T: Why did the man tell Brian to take off Brian's cap?
Ss: Because he may lose his cap.
T: If you want to cheer somebody up, what would you say?
Ss: Cheer up. / Don't worry, etc.
Ss: Thank you. / Thanks, etc.
T: What did you hear? Tell me anything.

(6) Understanding comparative sentences (C teacher)
- Yunho is taller than Jimin.
- Jimin is older than Nami.
- Jimin is bigger than Youngmi.
- Jimin's hair is longer than Youngmi's.
- Yunho is more handsome than Big Bang.

2.2. The practice stage

   In this stage, the students deliberately practice the vocabulary or the sentences they
have been given (deliberate practice) and concentrate on practicing the vocabulary
(accuracy). Tasks performed in this stage by two teachers are as follows:

(7) Memory game (L teacher)
T: Let's practice. Take each role and speak out loudly.
Mina: That *looks* fun. Let's *go*!
Brian: I don't want to go.
Mina: Why *not*?

Brian: Because *I'm scared*!

Mina: Don't *worry*. We'll wear safety belts. *Come on*!

Man: *Take off* your cap, please.

Brian: *Take off* my cap? Why?

Man: Because *you may lose it.*

Brian: Okay.

Brian: Wow, it is so much *fun*!

Mina: Brian, I'm scared. *Ahhhh*!

(8) Making comparative sentences (C teacher)

① Do rock-scissors-paper with your partner.

② The winner starts first.

③ Make an "-er' sentence one by one, taking turns.

④ If you think it's right, you say "I think so". If you don't, you say "I don't think so".

⑤ You cannot make the same sentence again.

⑥ The person who cannot make another sentence will lose.

2.3. The production stage

  In the production stage, teachers get pupils to use the practiced language in a real situation with some tasks.

(9) Card game (L teacher)

① Take 5 cards each.

② Do 'rock, scissors, paper' and set an order.

③ Say anything you don't have. You can see an example sheet.

④ Other students put down the card if they have it.

⑤ The player who has the most cards wins. The winners can put stickers on the loser's forehead.

(10) Making a dialogue (L teacher)

① Spread out the cards and take one green card each.

② Make a dialogue in order on your worksheet.

③ Role-play with your partner.

(11) Writing comparative sentences (C teacher)

① Ss are divided into 6 groups according to their favorite star.

② Ss brainstorm "-er" sentences about the star for 2 min.

③ Ss write a maximum of 5 sentences on their worksheet. Ss cannot write the same
   sentence.
④ Every group member must write at least 1 sentence.
⑤ The group that writes the most correct sentences wins.

   As for teacher 'L', the tasks such as 'guessing game', 'photo of me', and 'role play' were performed to help students ask questions and give reasons for their answers. As for teacher 'C', the tasks such as 'hand spans', 'transport survey', and 'picture telling' were done in order to help students understand and write comparative sentences. The tasks presented were analyzed in terms of OT.

IV. FINDINGS AND DISCUSSION

1. L teacher

   The goals of this class were to enable students to ask questions and give explanations for their answers, and to say comforting and encouraging words. In order to achieve these objectives, the 'look and think' task was implemented in the presentation stage. Here is an analysis of the task in terms of OT.

TABLE 3
L Teacher's Task Done in the Presentation Stage

	Curriculum	Integration	Authenticity	Interactivity
☞ Guessing game				*
Look & think	*!		*	
Look & Describe	*!			

The overall ranking of constraints is 'curriculum ≫ integration ≫ authenticity ≫ interactivity'. The constraint 'curriculum' is a higher constraint than constraint 'integration', constraint 'integration' is a higher constraint than constraint 'authenticity', and constraint 'authenticity' is a higher constraint than constraint 'interactivity'. In the constraint 'authenticity', tasks might be expected to display genuine communicative interaction outside the classroom. Accordingly, authenticity became the standard by which classroom tasks were judged (Thornbury, 2005). Constraint 'interactivity' is defined as the extent and type of involvement of the test taker's individual characteristics in accomplishing a test task (Bachman, 1990; Bachman & Palmer, 1996). As shown in

the table 3, the vocabulary words such as "amusement" and "nervous" used in the dialogue are not on the basic vocabulary list of the appendix of the curriculum. The activity of 'look and think' does not violate the constraint of 'integration' and 'interactivity' but violates the constraint of 'curriculum' and 'authenticity'. We see that the tasks of 'look and think' and 'look and describe" violate the highest constraint in the table. Consequently, they will be eliminated from successful candidates as the exclamation mark indicates. Since the guessing game violates the constraint 'interactivity', but does not violate the constraint 'curriculum', the evaluation process will pick it as optimal form. The task is appropriate to the national curriculum, because it can encourage children to predict and make active guesses about the listening in the presentation stage.

   The task 'memory game' was implemented in the practice stage.

TABLE 4
L Teacher's Task Done in the Practice Stage

	Curriculum	Integration	Authenticity	Interactivity
☞Photo of me				?
Memory game	*!		*	

The task 'memory game' which focuses on memorizing the communicative function of the dialogue violates the constraint 'curriculum' because speaking education should focus on communicating meaning and gradually encourage fluency within the framework of the curriculum. The activity of 'memory game' violates the highest constraint on the table. As a result, it will be eliminated from successful candidates as the exclamation mark shows. On the other hand, since the activity 'photo of me' which increases learners' communicative ability does not violate the constraint 'curriculum', the evaluation process will pick it as optimal form. The task asks learners to go round the class together identifying who they think is in each photo and to report back to the class who they think is in each photo giving reasons for their choice (Read, 2007).

   The task 'making a dialogue' was implemented in the production stage. Here is an analysis of the task in terms of OT:

TABLE 5
L Teacher's Task Done in the Production Stage

	Curriculum	Integration	Authenticity	Interactivity
☞Role play			*	
Making a dialogue			*	*
Agree or Disagree?	*!			

The task of 'agree or disagree?' violates the highest constraint in the table. The task helps learners express personal opinions and show interest and respect for the point of view of others. However, if teachers ask the children to take turns to tell their partner whether they agree or disagree with each statement and their reasons for this, learners produce sentences such as "I don't agree children should have homework every day because they need time to do other things." Such sentences violate the constraint 'curriculum', because the curriculum emphasizes the length of a single sentence. Therefore, it will be eliminated from successful candidates as the exclamation mark demonstrates. The task 'making a dialogue' where teachers spread out cards and learners put them in order on their worksheet was not an authentic situation and did not have an interactive component. On the other hand, the task 'role play' violated constraint 'authenticity', but did not play any crucial role (Chung, 2007; Chung, 2009). Role playing is a popular pedagogical activity in communicative language-teaching classes (Brown, 2004). Therefore, H-function evaluation process, which evaluates relative harmony of the candidates, will pick it as optimal form.

2. C teacher

The purpose of this class was to enable students to understand and write comparative sentences. In order to achieve the goal, the task 'understanding comparative sentences' was implemented in the presentation stage.

TABLE 6
C Teacher's Task Done in the Presentation Stage

	Curriculum	Integration	Authenticity	Interactivity
☞Hand spans			*	
Understanding comparative sentences	*!		*	

The task 'understanding comparative sentences' which focuses on exposing students to comparative sentences through tasks rather than explicit teaching, violates the constraint 'curriculum'. That is, teachers get students to understand and use comparative adjectives while doing tasks in the classroom. If the teacher uses techniques that direct the learner's attention to form, and if the teacher provides activities that promote awareness of grammar, learning seems to result (Thornbury, 2002). This task will be eliminated from successful candidates as the exclamation mark denotes. But, since the activity 'hand spans' violates constraint 'authenticity' but does not violate constraint 'curriculum', the

evaluation process will pick it as optimal form. The task is to ask and answer questions about measurements after recording the measurements of other children's hand spans in a chart and to compare the measurements in their group.

(12)   S1: How long is your hand span?
        S2: It's fifteen centimeters. How about you?
        S1: My hand span is thirteen centimeters.
        S2: My hand span is longer than yours.

If appropriate, children can write a short report about the hand span measurements of their group. As a follow-up, children can measure their feet in the same way (Read, 2007). Similarly, the teacher shows a picture of a beautiful sofa and says, "comfortable" followed by a picture of an old, school chair and says, "not comfortable". The teacher then shows a picture of a nice armchair followed by the comfortable sofa and says, "The armchair is comfortable but the sofa is more comfortable than the armchair" (Harmer, 2003).

Take a look at the practice stage. The task 'making comparative sentences' was analyzed in terms of OT as shown in the table.

TABLE 7
C Teacher's Task Done in the Practice Stage

	Curriculum	Integration	Authenticity	Interactivity
☞ Transport survey			?	
Making comparative sentences	*!		*	

The task 'making comparative sentences' which focuses on practicing comparative sentences in a mechanical drill violates the constraint 'curriculum'. The activity violates the highest constraint in the table. As a result, it will be eliminated from successful candidates as designated by the exclamation mark. On the other hand, since the task 'transport survey' which compares journeys and means of transport by asking how long each journey takes and how people come to school as shown in (13), does not violate the constraint 'curriculum'. The evaluation process will pick it as the optimal form.

(13) S1: How do you come to school, Youngmi?
      S2: By bus.
      S1: How long does it take?

S2: (About) 45 minutes. How about you?
S1: It takes 35 minutes by train.
S2: It's faster by train than by bus.

Group and class surveys can be done on many topics, such as skills and activities children can do, food they like, or pets or other possessions (Read, 2007).

In the production stage, the task 'writing comparative sentences' was implemented to allow students to write comparative sentences.

TABLE 8
C Teacher's Task Done in the Production Stage

	Curriculum	Integration	Authenticity	Interactivity
☞ Picture telling			?	*
Writing comparative sentences	*!		*	*

The task of 'writing comparative sentences' violates the highest constraint in the table. It will be eliminated from successful candidates as demonstrated by the exclamation mark. The task 'picture telling' which focuses on describing the picture using a comparative sentence violates the constraint 'interactivity' but doesn't violate the highest constraint 'curriculum'. Thus, the evaluation process will pick it as optimal form.

V. CONCLUSIONS

The starting point for task design should be the objectives which are set out in the syllabus or curriculum guideline. The next step is selecting or creating input for learners to work with. Teachers working in a foreign language context will be faced with greater difficulty in obtaining authentic samples of input than the second language teachers. When designing and monitoring tasks, teachers need to keep a close check on the actual language which is generated (Nunan, 1996).

This study aimed at investigating the optimal conditions for designing tasks appropriate to elementary classroom based on correspondence with the national curriculum, integration among the four skills, authenticity, and interactivity. From the findings, the overall ranking of constraints is Curriculum ≫ Integration ≫ Authenticity ≫ Interactivity, meaning that the constraint 'curriculum' is a higher constraint than constraint 'integration', constraint 'integration' is a higher constraint than constraint

'authenticity', and constraint 'authenticity' is a higher constraint than constraint 'interactivity'.

It is also shown that for teacher 'L', the activity 'guessing game' in the presentation stage, the activity 'photo of me' in the practice stage, and the activity 'role play' in the production stage was appropriate to help students ask questions and give reasons for their choices. As for teacher 'C', the activity 'hand spans' in the presentation stage, the activity 'transport survey' in the practice stage, and the activity 'picture telling' in the production stage needed more consideration in order to help students understand and write comparative sentences.

Recommendations being made, it should be acknowledged that this study involved some limitations too. Above all, a relatively small number of classes were selected for this study in classroom observation. Furthermore, various tasks such as information gap activities, classifying, ordering, comparing, sorting, and problem solving were not analyzed in terms of optimality theory. Future studies are anticipated in this regard.

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Examples in: English
Applicable Languages: English
Applicable Levels: Primary

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