Abstract: The evolving demand of teachers as effective curriculum practitioners and adapters has put the centrality of teacher knowledge in the dynamic system of instructional curriculum development. This study is aimed at exploring the development of Yogyakarta (Indonesia) EFL teachers’ conceptualization of pedagogical content knowledge (PCK) in their instructional curriculum design and practices. Within Shulman’s (1986, 1987) conception of PCK, Graves’ (2000) framework of instructional design processes and Graves (2008) model of a dynamic system of curriculum development, the primary investigation of the research focuses on how, and in what forms teachers’ understanding of content/subject matter representations is transformed into teachable instructional design and learnable instructional practices for a specific group of learners in particular socioeducational contexts. Multiple case study with purposive within- and multiple-case sampling techniques (Miles & Huberman, 1994) is employed to select six teachers; three of each represent experienced and inexperienced teachers of public junior high schools in Yogyakarta. The qualitative data are obtained from instructional document assessments, post-lesson reflections, semi-structured interviews, stimulated-recall interviews, and classroom observations. The preliminary research findings taken from instructional classroom observations are to primarily specify the development of teachers’ PCK in enacting their instructional curriculum. The identification of potential pitfalls of teachers’ classroom transformations to enhance student learning is beneficial to formulate more concrete strategies to help teachers improve their knowledge conceptualization for their instructional purposes.

Keywords: PCK, conceptualization of knowledge, instructional curriculum, instructional design, and instructional practices

Introduction

Current literature on teaching and learning has acknowledged that teacher change is inseparable from curriculum development (Ladwig, 2010). One of teacher change dimensions that has been widely researched is teacher knowledge. Rooted in the research tradition in education field, Shulman’s (1986, 1987) pedagogical content knowledge (PCK), as one of major concepts of teacher knowledge, has eventually influenced research on teacher knowledge in ESL/EFL teaching contexts. The bulk of research on L2 teacher knowledge and instructional practices (e.g. Borg, 1998; Breen, 1991; Burns, 1992; Golombok, 1998; Johnston & Goetsch, 2000; Richards, 1996; Richards et al., 1998; Wette, 2010; Woods et al., 2011; Tsui, 1996) shows that research on PCK that directly address the development of teachers’ PCK in classroom practices is still understudied. Frames of inquiries that scrutinize the intricate development of teachers’ PCK in planning and enacting their instructional curriculum are less explored.

This paper reports the preliminary findings of research on Yogyakarta (Indonesia) teachers’ conceptualization of PCK as represented in their instructional curriculum design and practices. The preliminary research findings fall into the exploration of how and in what forms teachers have transformed their understanding of content/subject matter representations into teachable instructional design and learnable instructional practices to enhance student learning in particular ‘socioeducational contexts’ (Graves, 2008).

Pedagogical Content Knowledge (PCK)

Emerging as part of growing interests on teacher knowledge research, pedagogical content knowledge (PCK) was introduced by Lee Shulman (1986, 1987) in response to the losing connection between content and pedagogy. Shulman (1987) positioned PCK as an essential entity of knowledge category that “represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction” (p. 8). This pivotal disposition requires teachers to be able to conceptualize the subject matter by understanding its content representations and transform the representations into effective pedagogical activities that are understandable to students, which Shulman (1987) further emphasized as teachers’ capability “from being able to comprehend subject matter for themselves, to becoming able to elucidate subject matter in new ways, reorganize and partition it, clothe it in activities and emotions, in metaphors and exercises, and in
examples and demonstrations, so that it can be grasped by students” (p. 13). Teachers’ transformations are realized into “forms that are pedagogically powerful and yet adaptive to the variations in ability and background presented by the students” (p. 15).

The referred understanding embedded in PCK, thus, differs “the understanding of the content specialist from that of the pedagogue” (ibid. p. 8). This complex understanding signifies several distinctive features that PCK as subject matter knowledge for teaching mainly pertains to how teachers reason their subject matter pedagogically (Deng, 2007), that PCK enables teachers to make delicate yet “meaningful blends of content and pedagogy for teaching” (Segall, 2004, p. 490), and that PCK allows teachers to be fully in control on how to digest the subject matter of an academic domain into the subject matter for student learning (Deng, 2007). Therefore, the conception of PCK is strongly attached to the pedagogical reasoning aspects of “understanding” and “transforming” that mark the extent of teachers’ being expert in conceptualizing their subject matter for their teaching and learning process.

Venturing Conceptualizations of PCK and Instructional Curriculum Development

English language teaching today has been characterized by more liberating pedagogical practices that legitimate teachers as curriculum makers and developers instead of merely curriculum transmitters. The key success of teachers’ instructional practices is laid on their ability to articulate their cognitive dimensions and the influence of sociocultural contexts (Richards & Burns, 2012), forming teaching as a complex and delicate activity in which “teachers are active, thinking decision-makers who make instructional choices by drawing on complex, practically-oriented, personalized, and context-sensitive networks of knowledge, thoughts, and beliefs” (Borg, 2003, p.81). This key practice, therefore, distinguishes teachers as “reflective practitioners” (Kumaravadivelu, 2003, p. 9) from “passive technicians” (ibid., p. 8).

This rapid changing direction has become the point of departure to take into account how English language teachers’ processes of understanding and transformation, which compound teachers’ pedagogical reasoning within PCK (Shulman, 1987), towards English language content representations are put into practice to develop teachable instructional plans and learnable instructional practices (Graves, 2000). The activation of this pedagogical reasoning underlying PCK conceptualization is viewed as teachers’ “specialized knowledge” (Graves, 2009) which guides teachers to be able to make plausible pedagogical reasons and choices about how to make language learning is understandable to students (ibid., 2000).

At the meeting point between the demand for teachers to plan and enact the coherent instructional curriculum development processes and the need for teachers to articulate their cognition, pedagogical reasoning underlying PCK conceptualization intersects. Venturing and evolving the conceptualizations of PCK to develop teachers’ classroom curriculum, therefore, offers teachers’ “diversity of directions, innovations, and challenges” (Berry, Loughran, & van Driel, 2008, p. 1273) in putting a “subject matter of an academic discipline” (Deng, 2007, p. 281) into classroom level design and practices.

The Study

This multiple-case study explored the development of pedagogical content knowledge of six teachers of public junior high schools, three of each represent experienced and inexperienced teachers, in Yogyakarta, Indonesia. This paper, however, reports the preliminary findings obtained from the instructional curriculum practices done by one experienced teacher.

Research Questions

The overall research questions that guide the direction of the research are as follows:

1) How and in what forms is teachers’ understanding of content/subject matter representations conceptualized into teachable instructional design and learnable instructional practices?

2) To what extent do teachers adapt/alter their conceptualized instructional design in response to their learners’ needs and learning needs?

3) To what extent do socioeducational contexts influence teachers’ conceptualization of PCK on their instructional design and their instructional practices?

4) What is the nature of teachers’ conceptualization of PCK?

This paper focuses on the elaboration of the research preliminary findings to answer the first question.

Population, Sampling, and the Characteristics of Multiple Cases

The population of the study was Yogyakarta EFL public junior high school teachers. Purposive within- and multiple-case sampling techniques (Miles & Huberman, 1994) were employed to select six teachers. The selection of cases was determined based on the major existing characteristics of Yogyakarta EFL public junior
high school teachers and the ones of the socioeducational contexts of the schools. The selection criteria include
certified teachers, henceforth experienced teachers, and non-certified teachers, henceforth inexperienced
teachers. Experienced teachers, or expert teachers (Freeman, 2002; Tsui, 2003), are those with at least four to
five years of teaching experiences in the classroom (Gatbonton, 2008). Whereas, inexperienced teachers or less
experienced (Berliner, 1986) teachers, or novice teachers (Freeman, 2002; Gatbonton, 2008; Richards et al.,
1995) are defined as those with less than three years of classroom experience (Freeman, 2002; Berliner, 1986) or
“those who are still undergoing training, who have just completed their training, or who have just commenced
teaching and still have very little (e.g. less than two years) experience behind them” (Gatbonton, 2008, p. 162).

In terms of the school settings, public junior high school was chosen as the attributive characteristics.
Public school was selected since the national teacher certification program has given more priorities to public
school teachers than private school ones; while, junior high school was chosen since its total number is three
times of those of public senior high schools (Department of Education, Youth, and Sports, Special Province of
Yogyakarta, 2011/2012). This larger population has implications for the significance of the study.

A number of six teachers were invited to participate in the project; three of each represent experienced
and inexperienced teachers of public junior high schools. Apart from the experience, other characteristics of the
participating teachers are as follows:

Experienced Teachers

1. Being willing to participate in the project
2. Actively teaching at public junior high schools and having been employed as permanent teaching staff
3. Having gained a minimum of five years of teaching experiences
4. Having obtained a minimum of bachelor degree in English Education or Applied Linguistics from a
   recognized and accredited tertiary education
5. Having passed the national teacher certification program either through a portfolio assessment or a teacher-
   training program

Inexperienced Teachers

1. Being willing to participate in the study
2. Actively teaching at public junior high schools and having been employed as either permanent or non-
   permanent teaching staff
3. Having taught for less than five years
4. Having obtained a bachelor degree in English Education or Applied Linguistics from a recognized and
   accredited tertiary education
5. Having been taking a further postgraduate degree or having been undergoing such a further teacher training as
   a teacher profession program while having been teaching for less than five years

The profiles of the six participating teachers (listed pseudonymously) are depicted in the following table.

Table 1 Profiles of the participating teachers in the study

<table>
<thead>
<tr>
<th>Teachers</th>
<th>School</th>
<th>Date of Birth/Age</th>
<th>Years of Experience/ TMT</th>
<th>Education Qualification</th>
<th>Certification Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experienced Teachers</td>
<td>Widuri</td>
<td>SMP Negeri 1 Semanu, Semanu, Gunungkidul</td>
<td>December 1 st, 1964/ 49 years old</td>
<td>24 years/ 1 March 1989</td>
<td>Bachelor in English Education Yogyakarta State University</td>
</tr>
<tr>
<td></td>
<td>Santi</td>
<td>SMP Negeri 1 Yogyakarta</td>
<td>April 19th, 1967/ 46 years old</td>
<td>16 years/ 1 January 1997</td>
<td>Bachelor in English Education Sanata Dharma University</td>
</tr>
<tr>
<td></td>
<td>Riani</td>
<td>SMP Negeri 3 Pajangan, Krebet, Sendangsari, Pajangan, Bantul</td>
<td>October 16th, 1970/ 43 years old</td>
<td>16 years/ 1 February 1997</td>
<td>Bachelor in English Education Yogyakarta State University</td>
</tr>
</tbody>
</table>
Inexperienced Teachers

<table>
<thead>
<tr>
<th>Name</th>
<th>School</th>
<th>Date of Birth</th>
<th>Age</th>
<th>Highest Education</th>
<th>Certification Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ani</td>
<td>SMPN 3 Jetis</td>
<td>July 22, 1986</td>
<td>27</td>
<td>Bachelor in English Education</td>
<td>Not yet certified</td>
</tr>
<tr>
<td></td>
<td>Bantul</td>
<td>1 year 6 months</td>
<td>25 July 2012</td>
<td>Yogyakarta State University</td>
<td></td>
</tr>
<tr>
<td>Wati</td>
<td>SMP N 1 WATES</td>
<td>October 12th, 1983</td>
<td>30</td>
<td>Bachelor in English Education</td>
<td>Not yet certified</td>
</tr>
<tr>
<td></td>
<td>PURWOSARI</td>
<td>4 years</td>
<td>1 January 2010</td>
<td>Sarjanawiyata Tamansiswa University</td>
<td></td>
</tr>
<tr>
<td>Widya</td>
<td>SMP N 1 WATES</td>
<td>January 16th, 1986</td>
<td>28</td>
<td>Bachelor in English Education</td>
<td>Not yet certified</td>
</tr>
<tr>
<td></td>
<td>PURWOSARI</td>
<td>3 years</td>
<td>1 January 2011</td>
<td>Yogyakarta State University</td>
<td></td>
</tr>
</tbody>
</table>

Data Collection and Analysis

Empirical data on teachers’ PCK development were generated from 24 teaching sessions performed by 6 teachers. Thus, each teacher was observed and video recorded 4 times. As a result, this study has yielded rich data that were obtained from 24 lesson plan assessments, 72 interview sessions that consist of stimulated-recall, pre and post lesson interviews, 24 video recordings, 24 teaching reflections, and 24 observation records. Each of the teaching performance lasted for 80 minutes and each of the interview spent the maximum duration of 60 minutes. The interviews and the video recordings were transcribed verbatim. Any Indonesian conversations were translated into English.

The data undergo within-case and cross-case data displays and analyses (Miles and Huberman, 1994). The data are analyzed to identify and describe the patterns of teachers’ ways, forms, and reasons of PCK development, the patterns for adapting/altering their instructional plans in response to their students’ needs and contexts, the influences of socioeducational contexts and how teachers, by their nature, conceptualize PCK in their instructional design and practices.

The data coding is set up based on Graves’ (2000) framework of course development processes. In addition, the coding system is made based on the emerging patterns and themes. All the data resources of within-and cross-cases are compared to find similarities and differences, to see the regularities of the emerging patterns and themes, and to organize the contributing and significant statements of the cases (participants) into manageable units of themes and patterns. The entire data analyses and displays are expected to form a manageable set of patterns and themes reflecting the evidence of teachers’ PCK development.

Findings

As mentioned before, this paper reports the preliminary research findings obtained from an experienced teacher namely Riani who taught English at SMPN 3 Pajangan, Bantul, Yogyakarta. The analysis of findings was generated from the data resource of observation records.

Riani had approximately 16 years teaching experience. She earned a Bachelor’s degree in English Education from a qualified and credible state university in Yogyakarta and passed the national teacher training as the requirement to obtain the national teacher certification. Her professional development record showed that she participated in some workshops and teacher trainings in the last two years from 2012 to 2013. However, she did not attend any conference during this period, yet participated in a regional seminar in 2012.

1. Teacher’s Instructional Curriculum Practices

Riani’s Instructional Curriculum Practices

Riani taught English to the grade IX students of SMPN 3 Pajangan, Bantul. She was observed four times for the research and each of her teaching session lasted for 80 minutes. In the first observation, she focused her lesson to develop the students’ reading skills. The chosen standard competence was comprehending the meanings of written, simple, and short functional text and essays in the forms of narrative and report to interact in daily life context. The following basic competence she outlined was responding to the meanings of written, simple, and short functional texts in the form of caution/notice accurately, fluently, and appropriately to interact in daily life context. To achieve the standard competence and the basic competence, she formulated one learning goal and three learning objectives (indicators). The learning goal of her lesson was that the students were expected to comprehend short functional text in the form of caution/notice by having involved in individual, pair group, and/or group activities. This learning goal was then elaborated into three learning objectives, which were
to find implied information in short functional text in the form of caution/notice, to identify communicative purpose/the meaning of short functional text in the form of caution/notice, and to find the linguistic features of short functional text in the form of caution/notice.

Having formulated the direction of her lesson, she sequenced her classroom practices by applying genre-based teaching with its four stages comprising Building Knowledge of Field/ BKOF, Modeling of Text/ MOT, Joint Construction of Text/ JCOT, and Independent Construction of Text/ICOT. Following this sequence, she structured her instructional activities as follows:

Table 2 The sequence of the lesson

<table>
<thead>
<tr>
<th>No.</th>
<th>The Teaching Stages</th>
<th>Instructional Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opening Activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Greeting</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Checking the student attendance</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Introducing what the students were going to learnt</td>
<td>Explicitly informing what the students were going to learn</td>
</tr>
<tr>
<td><strong>Main Activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BKOF</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Activating and eliciting the students’ prior knowledge on the text they were going to learn</td>
<td>1) Telling the students that notice and caution belong to short functional text 2) Asking the students to mention kinds of short functional text they have previously learnt</td>
</tr>
<tr>
<td><strong>MOT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Providing the models of short functional text in the forms of notice and caution</td>
<td>1) Giving samples of notice and caution on power point slides 2) Prompting the students to examine the meaning of the exemplified notice and caution by translating it into Bahasa Indonesia 3) Showing more examples of notice and caution</td>
</tr>
<tr>
<td>6.</td>
<td>Explaining the linguistic features of notice, and caution</td>
<td>Teaching grammar teaching explicitly (The language features presentation covers the use of imperative sentences for notice and the use of ‘No’ and ‘Don’t’ followed by V1 or Be for caution, and typical words (vocabulary) that are identical to notice (e.g. allow, suggest, permit) and caution (e.g. prohibit, ban, forbid).)</td>
</tr>
<tr>
<td><strong>JCOT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Assigning the students to work in pairs and to match the words in column A with the meaning in column B (Activity 1)</td>
<td>1) Designing a vocabulary practice in which the students have to find/match the English words in column A with their meanings in Bahasa Indonesia in column B 1a) Providing a worksheet containing 20 words in English to be matched with their meanings in Indonesian. 1b) Asking the students to work in pairs and elaborating further instructions to do the activity.</td>
</tr>
<tr>
<td>8.</td>
<td>Together with the students discussing the meanings of the given vocabulary related to notice and caution (The worksheet was also shown on the power point slide.)</td>
<td>Asking the students the meaning of each word in Bahasa Indonesia (simply asking the students to mention the meaning in Bahasa)</td>
</tr>
<tr>
<td>9.</td>
<td>Assigning the students to arrange the given words into a good notice or caution in pairs (Activity 2)</td>
<td>Creating an activity in which the students had to arrange the given words into a caution or notice (jumbled words)</td>
</tr>
<tr>
<td>10.</td>
<td>Confirming the students’ works in arranging the given words into caution or notice</td>
<td>Discussing the students’ arranged notices and cautions by probing the students to translate the texts into Bahasa Indonesia</td>
</tr>
<tr>
<td>11.</td>
<td>Assigning a matching game. A number of the students was given caution and notice cards.</td>
<td>Creating a matching game in which the students have to match the correct place for the correct</td>
</tr>
</tbody>
</table>
While the other students were given places where the caution and notice can be found. They have to find the right caution or notice for the right place by asking each other. (Activity 3)

| 12. Checking the students’ matched notices or cautions and the places by taking samples of the students’ works and putting them inside the display box. | 1) Discussing the students’ works by giving the clues (key words such as parking, swim, gas tank, room key card, national examination, etc.) to the students to guess the place where the text can be found 2) Confirming that the notices or cautions go with the correct places |

| Closing Activities |
| 13. Making sure the students have understood the lesson and relating it with the national examination |
| 1) Asking whether the students have understood the lesson 2) Exploring kinds of reading questions that are usually asked in the national examination about notice and caution |

2. Discussion of Riani’s Instructional Curriculum Practices

Teacher’s Conceptualization of Pedagogical Content Knowledge (PCK)

Teacher’s conceptualization of PCK in this first observation is directed to transform the teacher’s understanding of English as a subject matter for teaching short functional text in the forms of notice and caution and developing reading skills. Hence, the content representations that the teacher has to explore are the representations within the kinds of short functional text she chooses to teach and the kinds of reading skills she intends to develop. These content representations are supposed to be transformed into instructional activities that are pedagogically effective to make the students comprehend short functional text in the forms of caution and notice, and develop their reading skills. The forms of the teacher’s classroom transformations have also to be properly adjusted to “the variations in ability and background presented by the students” (Shulman, 1987, p. 15).

Teacher’s Conceptualization of Content Representations and Instructional Activities

The teacher’s conceptualization of content representations led her to come to her selection of the kinds of short functional text she intended to teach. The pedagogical reasoning of this selection seems to be based on the national EFL school-based curriculum (KTSP) applied in Indonesia. However, her conceptualization for choosing short functional text in the forms of caution/notice was not compatible with the standard competence of comprehending the meanings of written, simple, and short functional text and essays in the forms of narrative and report to interact in daily life context that she outlined on her lesson plan. In regard to the identification of content representations inherent in the chosen text, it is influenced by the level of complexity of the text that must be adjusted to the level of the students’ grade she taught. To conceptualize whether the text complexity is proper to the students’ level of learning, the teacher is supposed to be able to bridge what is expected by the national curriculum and the entry level of her students’ learning. She needs to further find out in what ways the complexity level of the selected input text can enhance the data on the internal capacity of her students that include such factors as the level of confidence and motivation of learners, prior knowledge of content, degree of linguistic knowledge and skill, the extent of cultural knowledge, and the degree of familiarity with the task (text) type itself (Nunan, 1999).

The second content representation that the teacher has to conceptualize is the content representation for developing the students’ reading skills. To be able to develop reading skills, she needs to conceptualize the sub-skills of reading and transform the conceptualized sub-skills into relevant, appropriate, and understandable instructional activities to the students. By choosing the genre-based teaching sequence, she is then expected to provide graded scaffolding which will take her students to go to the planned level of learning from their entry level of learning. To do so, Riani, as the teacher, is required to understand the characteristic of each stage of genre-based teaching so that she will be able to select the most appropriate and accessible learning activities for her students. In so doing, the processes of representing, selecting, and adapting as she transforms the text and reading skill representations will be more student-driven and informed by her “ecological perspective” (Tudor, 2003) surrounding her instructional curriculum practices.

Looking back to the teacher’s classroom transformations of short functional text in the forms of caution and notice, and reading skills into instructional activities, some major findings are revealed:
1) The forms of instructional activities, in overall, have made the students learn the content representations of short functional text in the forms of caution and notice, such as the communicative purpose and the linguistic features of the text.

2) The instructional activities, however, do not reflect the development of reading skills since the students were not exposed with reading activities. The reading sub-skills of identifying implied meaning of the text, communicative purpose of the text, and linguistic features of text were not transformed into sufficient design of reading practices.

3) The characteristics of the chosen teaching sequence of genre-based teaching stages were not comprehended well so as to hinder the teacher to transform the content representations of short functional text and reading skills into instructional activities that are congruent with the four stages of text-based teaching.

Conclusions
The instructional curriculum practices described and discussed in this paper elucidate the importance of examining how teachers conceptualize their instructional curriculum practices; tracing how teachers’ pedagogical reasoning contributes to the development of their coherent instructional curriculum practices. The conceptualization of pedagogical content knowledge enables teachers who are willing to learn to reflect how their subject matter expertise collides with their experiences and their professional development activities in the concert of their instructional curriculum practices; leaving the development of instructional curriculum practices that really make learning take place.

References


