

ESP Teachers' beliefs about their roles in Teaching Technical Vocabulary

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ABSTRACT: This paper investigates the beliefs of the English for Specific Purposes Teachers (ESPTs) about their roles in teaching English Technical Vocabulary (ETV) in a Saudi Arabian Industrial college called Yanbu Industrial College (YIC). It also aims to find the reasons behind their beliefs and explores the extent to which their beliefs go in line with the literature available about this topic.

Methodologically, a qualitative study under the case study tradition was conducted. Six ESPTs were interviewed to understand their beliefs regarding their roles in teaching technical vocabulary and the reasons behind their stated beliefs.

The study found different beliefs held by ESPTs. They believed that ETV items form should be taught by them, meaning should be introduced jointly with subject teacher and use should be taught by subject teachers due to its advanced technicality.

The study suggested some educational implications and recommended experts in the area to carry out future scrutiny to understand this topic from different dimensions.

KEYWORDS: ESPTs, subject teachers, ETV items, beliefs, English for specific purpose

1. HISTORY OF TEACHERS' BELIEFS

The late 1980s and 1990s witnessed overwhelming research in the teacher cognition field. The meaning of the concept 'beliefs' started to take on different dimensions without agreeing upon one fixed definition.

By the emergence of the new millennium, researchers had continued to show interest in the concept of teachers' beliefs. The concept of Teachers' beliefs has been defined in different ways. One of the definitions of teachers' beliefs is a set of knowledge, thoughts, attitudes, ideas and values held by English for Specific Purposes Teachers (ESPTs) and expressed as evaluative statements of 'what should/should not be done', 'should/should not be the case' and 'is/is not preferable' about all internal (what beliefs mean to teachers) and wider (impact of the context) aspects that relate to English Technical Vocabulary (ETV) in an ESP context (Pajares, 1993; Borg, 1999, 2006; Basturkmen, Loewen and Ellis, 2004).

2. TEACHERS' BELIEFS: IMPORTANCE AND TERMINOLOGY

The last twenty years have witnessed a burgeoning interest in teacher beliefs due to its importance in the educational and training domains. One central theme to this interest has revolved around the attempt to understand how teachers' stated beliefs determine and shape their actual pedagogical practices (e.g. Pajares, 1992; Calderhead, 1996; Richardson, 1996; Freeman, 2002; Borg, 2003, 2006).

Teachers' beliefs research has shifted our understanding away from viewing teachers as people who master a set of general principles and theories developed by experts, towards a view of teaching as a thinking activity where teachers construct their own personal and workable theories of teaching (Fang, 1996; Richards, 1998; Borg, 2003).

As far as the terminology is concerned, there have been many terms for the concept 'beliefs' (such as attitudes, knowledge, principles, theories, schema and images) used by different researchers in the field following the explosion of research from the late 1980s. Therefore, these researchers argue that much of the overlapping and confusion with regard to teachers' beliefs studies is due to the ambiguity of the term 'beliefs' (Nespor, 1987; Pajares, 1992; Borg, 2006). Pajares (1992: 30), for instance, considers that defining beliefs is at best "a game of player's choice". This means that beliefs can be defined according to the purpose of each study and that researchers may combine one or more definitions to suit the purpose of their studies. Borg (2006: 35) states that "the confusion is also due to the fact that identical terms have been defined in different ways and different terms have been used to describe similar concepts". To show this diversity, he showed how some labels such as 'teachers' beliefs', 'culture of teaching', 'perspective and conception of subject matter' etc. have been used by some researchers in describing teacher cognition. Borg (2006:

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49) also emphasised that “the superficial diversity created by these terms... should not mask the considerable overlap which exist among them”.

This study will use the term ‘belief’ for different reasons. Firstly, it encompasses the major terms (thoughts, knowledge, attitudes, values and ideas) used by specialists in the field when defining the concept (beliefs). Secondly, it distinguishes teachers’ beliefs as being about what should be done (beliefs or ideals) separately from what, in reality, is done (practices). Finally, it views the teacher not only as a reporter but also as an evaluator; in other words, teachers do not only say what they believe in, but also evaluate that by showing the dis/advantage(s) compared to other beliefs.

3. THE ROLES OF ESPTS IN ESP CONTEXT

Harding (2007) defines an ESPT as a practitioner who works out the students’ language requirements in relation to their specialism. An ESPT is usually defined through their role in the context.

Dudley-Evans and St. John (1998), in an extensive coverage, prefer to call an ESPT a ‘practitioner’ because they believe that the term ‘practitioner’ reflects the five main areas that ESP work involves, which are:

- (1) the ESP practitioner as a teacher who is willing to listen to students, to provide them with one-to-one advice and tutorials, to feel happy to take risks, to think reciprocally and to respond to events;
- (2) the ESP practitioner as a course designer who plans the course, chooses suitable published materials and adapts, writes and assesses the material, if that which is published is unsuitable;
- (3) the ESP practitioner as a researcher who is a qualified observer of their students, capable of carrying out research in order to understand the teaching context and consequently to incorporate its findings in the students’ context;
- (4) the ESP practitioner as a collaborator who is eager to work side-by-side with subject specialists (modes and types of collaboration between ESPTs and CATs will be investigated in detail in section 3.2.11); and
- (5) the ESP practitioner as an evaluator who is competent in testing the students and evaluating the teaching material.

By and large, similar tasks have also been identified as the role of ESPTs by other researchers (Koh, 1988; Schleppegrell and Linda, 1990; Jackson, 1998).

As far as the teaching of ETV by ESPTs is concerned, my view conforms to a great extent with that of Fraser (2005: 70):

“It is, of course, impossible for all ESPTs to be specialists in their students’ disciplines, but teachers should certainly be prepared to invest a significant amount of time into acquiring subject content knowledge”.

4. WHAT TO TEACH IN A TECHNICAL WORD?

One of the major questions in vocabulary teaching studies is what to teach about a word. Nation (2001) argues that form, meaning and use are the three aspects involved in knowing any word and ETV items are no exception (see Table 4.1)

Table 4.1. Aspects Involved in Knowing a Word

(P) = Productive knowledge (R) = Receptive knowledge

Form	Spoken	R	What does the word sound like?
		P	How is the word pronounced
	written	R	What does the word look like?
		P	How is the word written and spelt?
	Word parts	R	What parts are recognizable in this word?
		P	What word parts are needed to express the meaning?
Meaning	Form and meaning	R	What meaning does this word form signal?
		P	What word form can be used to express this meaning?
	Concepts and referents	R	What is included in the concept?
		P	To what items can the concept refer?
	Associations	R	What other words does this make us think of?
		P	What other words could we use instead of this one?
Use	Grammatical functions	R	In what patterns does the word occur?
		P	In what patterns must we use this word?
	Collocations	R	What words or types of words occur with this one?
		P	What words or types of words must we use with this one?
	Constraints on use (register, frequency...)	R	Where, when & how often would we expect to meet this word?
		P	Where, when & how often would we expect to use this word?

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5. RESEARCH QUESTIONS

This study will address the following three research questions:

RQ1. What are the ESP Teachers' beliefs at YIC about their roles in teaching ETV items?

RQ2. Why do ESP Teachers at YIC have specific beliefs regarding their roles in teaching ETV items?

RQ. To what extent do ESP teachers' beliefs at YIC about their roles in teaching ETV items go in parallel with the available literature in this topic?

6. THE STUDY METHODOLOGY

This study is a qualitative one which was carried out under the case study tradition. It was employed to gather data about the beliefs of six ESPTs at YIC who teach English for different purposes (see table 4.1). Interviewing is a conversation with the purpose of gathering information (Berg, 2004). The interview is also considered to be "...the most often used method in qualitative inquiries" (Dörnyei, 2007: 134). Different interview types can be employed to gather data for different types of research (Mackey and Gass, 2005).

Table 6.1. ESP Participants' Background Information

Participant	Degree held	Teaching experience	Major	Nationality	Module observed
ESP NS	BA TEFL	12 yrs.	TEFL	Jordanian	Technical English
ESP NL	M.Sc. in ESP	18 yrs.	ESP	Jordanian	Business English
ESP JB	BA in Education & TESOL Certif.	19 yrs.	TESOL	American	Technical English
ESP PM	BA in Social Sciences	27 yrs.	Social Sciences	British	Technical English
ESP WH	BA in Linguistics	7 yrs.	Linguistics	Saudi	Business English

The interview employed in this study is, to a great extent, semi-structured in nature. As far its structured dimension in this study goes, similar questions are asked of all those involved, the kind and form of questions go through a process of development to ensure (a) their topic focus, (b) equivalent coverage (with an eye to subsequent comparative analysis), (c) interviewees are prompted by supplementary questions and (d) approximately equivalent interview time is given for each participant (Gillham, 2005). The interviews in this study also include the following unstructured features: some questions are open (i.e., the direction of the answer is open) and probes are used according to whether the interviewer judges there is more to be disclosed at a particular point in the interview (Gillham, 2005). A number of participants were also asked some questions which did not appear on the interview schedule due to the nature of the discussion between myself and the teacher. Similarly, although the interview schedule was essentially consistent, it was not always exactly identical in terms of question wording or order of questions, due to the nature of the themes covered, which are all essential features of semi-structured interviews (Borg, 2006: 204).

The semi-structured interview has been utilised in this work due to its long and successful tradition of use in teacher thinking research (Mangubhai, Marland, Dashwood and Son, 2004) and the many advantages associated with using it. In addition to the fact that this study employed interviews in general to examine unobservable phenomena, such as perceptions and attitudes (Mackey and Gass, 2005), the semi-structured interview, in particular, has been utilised to obtain reliable data by taking advantage of its flexibility balanced structure (Borg, 1998, 2006; Gillham, 2005).

In addition to the interview questions, three prompt cards were also used in the interviews. Prompt card no. 1 elicited more data regarding the issue of how ETV items should be taught. Prompt card no. 2 came from Nation's taxonomy (see section 3. Table 3.1 which contains aspects involved in learning vocabulary), while prompt card no. 3 sought answers regarding the potential wider issues that may cause these teachers some challenges and difficulties when teaching ETV items. The prompt cards were not used until each participant had freely answered the general open-ended questions in the semi-structured interview.

7. STUDY RESULTS AND DISCUSSION

The analysis of the data gathered from the semi-structured interview provided rich information regarding ESPTs beliefs regarding who should teach different aspects of lexical information of ETV items.

With Nation's (1990, 2001) division of the aspects involved in each word in mind (i.e., form, meaning and use). Teachers showed different beliefs regarding the aspects of lexical information that should be taught by ESPTs.

With regard to the aspects of form which involve pronunciation, spelling and word parts, it was found that almost all ESPTs believe that they are responsible for teaching the pronunciation of ETV items, word parts, spelling and writing. ESP MD, for instance, stressed that:

"The ESP teacher is the one who should deal with spelling and pronunciation of the word because he is the one who teaches language and language is mainly about these things". (ESP MD)

Although ESPTs believe that form aspects should be taught by them, only two ESPTs were found who held the belief that this is a joint task between ESPTs and subject teachers.

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The aspect of meaning which contains form and meaning, concept and reference, and associations gave rise to different and interesting beliefs. Although ESPTs generally believe that the meaning aspect should be taught by subject teachers, some ESPTs believe that some instructional benefits can be obtained by doing this job jointly with subject teachers, especially when the meaning is not purely technical. ESP NL, for instance, said that the ETV item *transformer* can easily be translated by him as محول كهربائي, or simply defined as 'a device that transfers electrical energy'; however, how that happens, what other operations occur or what other elements are involved in this operation are beyond his capacity and should be dealt with by the subject teachers.

On the aspect of use which includes collocations and constraints of use, different beliefs were reported by the ESPTs. In general, all ESPTs believe that this aspect should be taught by subject teachers, since it resembles the aspect of meaning in the sense that they both require specialised subject knowledge.

However, ESPTs agreed that when the aspect of the word to be taught is non- scientific in nature, as in the case of grammatical patterns for use or when it belongs to linguistic issues (e.g. constraints of formal use vs. informal use of ETV items), then it is the job of ESPTs to teach them. In this regard, ESP JB explained how the ESPT is able to teach the aspect of use when it mainly contains linguistic features:

"Definitely it would be the ESP. The ESP teacher can teach the students how to use these words or at least tell them how to find these informal use in different sources like language dictionaries or in the internet". (ESP JB)

To conclude, it can be said that ESPTs hold a mixture of similar and different beliefs about who should teach different aspects of ETV items. As far as teaching the form and meaning go, there seem to be similar beliefs that form is mainly for the ESPTs while meaning is for the subject teachers. However, the aspect of use is quite controversial in the sense that it is not a determiner in itself but rather it is the way the ETV is used (i.e., scientifically or linguistically) that informs teachers' beliefs regarding who should teach it. Table 5.1 gives a summary of the ESPTs beliefs regarding the roles of all partners in the task of technical vocabulary items instruction.

7.1. ESPTs beliefs about the roles of ESPTs, subject teachers and both parties in teaching ETV items.

Aspect	ESPTs' stated belief
Job of ESPTs	ESPTs should show the <i>constraints of using</i> some ETV items. Students learn better if ESPTs show them different <i>affixations</i> of ETV items.
Job of subject teachers	Showing <i>Concepts and referents</i> of ETV items generally requires specialised content knowledge and should be taught by CATs.
Job of both parties	What other words <i>collocate</i> with ETV items should be taught by both parties.

The effect of educational and teaching experience in the present study seem to be a major determinant of the ESPTs' in instructing ETV items. As far as the impact of educational and teaching experience in teachers' *beliefs* go, many ESPTs explained that the novelty of some ETV items and their own lack of relevant specialised experience caused them some challenges when teaching this type of vocabulary. This overall finding confirms previous research, such as that by Sato and Kleinsasser (1999) who investigated Japanese teachers' beliefs and practices regarding CLT teaching and concluded that teachers' beliefs were influenced by their own learning and teaching experience. All ESPTs at YIC report that teaching ETV items with little or no previous relevant experience is one of the main challenges they face in their job. This finding has been mentioned, to some extent, in other similar studies, such as by Gao and Ma (2011) who concluded that pre-service Hong Kong teachers' beliefs about the importance of lexical knowledge were mainly mediated by their prior learning experience .

8. STUDY CONCLUSION

The main overall objective of this study was to investigate ESP teachers' stated beliefs regarding their roles in teaching technical vocabulary items. To achieve this goal, six participants from YIC were interviewed.. The study design, which involved a predominantly qualitative approach was utilised to collect valid data and consequently obtain credible findings from the context of the study.

8.1 The Pedagogical Implications and Recommendations

The findings of this study, practically-speaking, are expected to serve more than one purpose by creating knowledge which will be useful to researchers in the field of language teacher cognition and L2 vocabulary instruction, teachers and teacher educators, materials writers and administrators in the local context, as well as for a wider audience.

Several educational and institutional factors (such as the teachers' experience and the YIC overall context) were found to influence the teachers' behaviour. The findings regarding the ESPTs' beliefs may be useful to other ESP scholars, especially the beliefs about who they believe should teach them.

The findings of this study can also be used to provide specialized training for ESPTs on teaching ETV items at industrial and technical colleges. Central to this preparation is to provide classes for joint courses between ESPTs and subject teachers so that they

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can provide complete explanation for all ETV items in different subjects. It is also advised that ESPTs should avoid teaching difficult ETV items without consulting subject teachers and should, in turn, provide sufficient linguistic information to their partners (i.e., subject teachers) to guarantee the accuracy of introducing ETV items form.

Finally, it will be also a good idea to further our understanding about ESPTs and subject teachers' beliefs by conducting future study which compares both parties' beliefs about technical vocabulary instruction and introduce reliable teaching materials based on their articulated beliefs.

REFERENCES

- 1) Basturkmen, H., Loewen, S., & Ellis, R. (2004). Teachers' stated beliefs about incidental focus on form and their classroom practices. *Applied Linguistics*, 25, 243-272.
- 2) Berg, B. (2004). *Qualitative research methods for the social sciences*. USA: Pearson.
- 3) Borg, S. (1998). Teachers pedagogical system and grammar teaching: A qualitative study. *TESOL Quarterly*, 32, 9-38.
- 4) Borg, S. (1999). The use of grammatical terminology in the second language classroom: A qualitative study of teachers' practices and cognitions. *Applied Linguistics*, 20(1), 95-126.
- 5) Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, 36, 81-109.
- 6) Borg, S. (2006). *Teacher cognition and language education: Research and practice*. London; New York: Continuum.
- 7) Calderhead, J. (1996). Teachers; beliefs and knowledge. In D. Berliner & B. Calfee (Eds.) (1996). *Handbook of Educational Psychology* (pp. 709-725). New York: Macmillan.
- 8) Dörnyei, Z. (2007). *Research methods in applied linguistic quantitative, qualitative and mixed methodologies*. Oxford: Oxford University Press.
- 10) Dudley-Evans, T., & St. John, M. (1998). *Developments in English for specific purposes*. Cambridge: Cambridge University Press.
- 11) Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Research*, 38(1), 47-65.
- 12) Fraser, S. (2005). *The nature and role of specialized vocabulary: What do ESP teachers and learners need to know?* Hiroshima: University of Hiroshima. Retrieved 5 January 2011, from http://ir.lib.hiroshima-u.ac.jp/metadb/up/kiyo/AA11424332/h-gaikokugokenkyu9_63.pdf
- 13) Fraser, S. (2006). The nature and role of specialised vocabulary: What do ESP teachers and learners need to know? *Hiroshima Studies in Language and Language Education*, 9, 63-75.
- 14) Freeman, D. (2002). The hidden side of the work: Teacher knowledge and learning to teach. *Language Teaching*, 35(1), 1-13.
- 15) Gao, X., & Ma, Q. (2011). Vocabulary learning and teaching beliefs of pre-service and in-service teachers in Hong Kong and mainland China. *Language Awareness*, 20(4), 327-342.
- 16) Gillham, B. (2005). *Research interviewing: the range of techniques*. Berkshire: Open University Press.
- 17) Harding, K. (2007). *English for specific purposes*. Oxford: Oxford University Press.
- 18) Jackson, J. (1998). Reality-based decision cases in ESP teacher education: Windows on practice. *English for Specific Purposes*, 17(2), 151-167.
- 19) Koh, M. (1988). The changing role of the ESL teacher and implications for ESP. In M. Ticko (Ed.), *ESP: State of the art* (pp. 74-79). Singapore: SEAMEO Regional English Language Center.
- 20) Mackey, A., & Gass, S. (2005). *Second language research methodology and design*. Mahwah, NJ: Lawrence Erlbaum.
- 21) Mangubhai, F., Marland, P., Dashwood, A., & Son, J. B. (2004). Teaching a foreign language: One teacher's practical theory. *Teaching and Teacher Education*, 20(3), 291-311.
- 22) Nation, I. S. P. (1990). *Teaching and learning vocabulary*. Boston: Heinle & Heinle Publishers.
- 23) Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- 24) Nation, I. S. P. (2003). Vocabulary. In D. Nunan. (Ed.), *Practical English language teaching* (pp. 129-152). New York: McGraw Hill.
- 25) Nation, I. S. P., & Gu, P. Y. (2007). *Focus on vocabulary*. Sydney: NCELTR.
- 26) Nespor, J. (1987). The role of beliefs in the practice of teaching. *Journal of Curriculum Studies*, 19(4), 317-328.
- 27) Pajares, M. F. (1992). Teachers, beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62(3), 307-332.
- 28) Pajares, F. (1993). Preservice teachers' beliefs: A focus for teacher education. *Action in Teacher Education*, 15, 45-54.
- 29) Richards, J. (1998). *Beyond training: Perspectives on language teacher education*. Cambridge: Cambridge University Press.

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- 31) Richardson, V. (1996). The role of attitudes and beliefs in learning to teach: In J. Sikula, T. Buttery & E. Guyton (Eds.) (1996). *Handbook of research on teacher education* (2nd edn) (pp. 102-119). New York: Macmillan.
- 32) Sato, K., & Kleinsasser, R. C. (1999). Communicative language teaching (CLT): Practical understandings. *Modern Language Journal*, 83(4), 494-517.
- 33) Schleppegrell, M., & Linda, R.. (1990). Business English: An international survey. *English for Specific Purposes*, 9(1), 3-16.



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