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Table of Contents

1. Dr. Kalyani Samantray	4-18
<i>Striving for Fluency through Accuracy: A Blend of Choices</i>	
2. Dr. Roger Nunn.....	19-31
Holistic Learning, First-Person Voice and Developing Academic Competence	
3. Dhanya Bhaskaran.....	32-46
Content and language Integrated Second Language Learning: Misrepresentations of Basic Principles in the UG English Curriculum of Engineering Courses	

Striving for Fluency through Accuracy: A Blend of Choices

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Biodata

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Abstract

In the post-method scenario, the concerns of second language teaching/learning are for the learners to be accurate and fluent in language production. The use of focus-on-form methods for the development of the system of SL grammar aims at correctness. For this reason, the use of formal methods is recommended to maintain SL learning benchmarks. On the other hand, the fluency development approaches, seemingly akin to natural learning processes with the associate advantages, may leave out some aspects of the system from the scope of formalization. This paper describes a study that used the advantages of each approach in developing an SL grammar teaching protocol with inputs from sixteen pre-service trainee teachers. The protocol has been designed keeping in sight the pedagogic and the applicability concerns of real teaching contexts. The findings lead us to deduce that an understanding of learning psychology and desired learning outcomes influence the adoption of a *combination* methodology in teaching grammar to arrive at accuracy that simultaneously leads to fluency.

Key words: *accuracy, fluency, grammar teaching methodology, pre-service trainees*

1. Introduction

Teaching and learning the grammar of an SL are believed to form the core by which the SL system is mastered in a balanced way for form and function. In the Indian context, SL grammar learning and teaching have traditionally received a position of primacy. Research arguments on learning and teaching of grammar may be for or against a focus on accuracy or fluency, for or against the deductive or the inductive methods of teaching grammar depending on the research undertaken with

different perspectives (Bloor & Bloor 2004; Chalipa 2013; DeKeyser, 1998, 2001; Ellis, 2001, 2002a, 2006; Leow, 1998, 2001, 2002; Nasaji & Fortos 2011; Nunn 2006, 2013; Rutherford, 1987, 1988; Schmidt, 1990 1993, 2001; Simlin 2013; Skehan, 1998; Tomlin & Villa, 1994; Wong et al 2011). Whatever direction the pendulum of research may swing towards, the overriding concern of SL learners and users has always been achieving both accuracy and fluency in language production. However, for Indian learners, the anxiety is more for accuracy rather than for fluency.

The issue investigated here is *the role of accuracy* in SL learning that can lead to fluency and communicative competence, and efficient production. The SL discussed is English. This paper reports a study that investigated these issues: a. Should focus-on-form (FonF) grammar be a major aim in ELL for communicative competence?; b. If it is, then how should FonF grammar be taught? The questions have been investigated in the Indian context.

2. Review of Literature

Grammar, as a subsystem in a network of other linguistic sub-systems and sub-skills (Newby, 2003), has been attached different roles in the language classroom, though not much consensus is available on the level, content and methodology of grammar teaching. The grammar debate in the history of ELT has preoccupied theorists and practitioners asserting the advantages and disadvantages of both form focused and function oriented teaching of grammar. Differences in attitude to the role of grammar underpin differences between methods, between teachers, and between learners (Thornbury, 1999, p.14). Nevertheless, grammar has always been considered as having a direct and decisive influence on ESL pedagogy, learning processes and output competencies. In the post-CLT era, the notion of output competencies implies fluency and accuracy in proper combination for appropriate creation of meaning involving grammar affecting performance in all four skills (Larsen-Freeman: 1995).

Lock (1997, p.267) mentions some dichotomies that arise while dealing with grammar teaching. These dichotomies are form against function and meaning, fluency versus accuracy, meaning-based instruction in opposition to form-based instruction, and finally communication versus grammar. Nunn (2013) also draws our attention to 'integrating' (p.11) rather than emphasizing the dichotomy of a 'binary relationship' (p.11) to bring about a holistic perspective to learning. Traditional

grammar teaching, communicative language teaching (CLT) and post-communicative approaches are the three approaches which were used to study the differences (Newby, 2003).

The traditional method of grammar teaching dealt with teaching and learning the syntax and morphology, considering meaning at a different linguistic level. Grammatical competence was understood as explicit knowledge of rules in psychological terms.

Notional-functional view of language led to the origin of CLT. Grammar was noticed as semantic and functional by Hymes, Austin and Halliday's theories (discussed in Bloor, 2004, p. 2). They also considered grammar as a study of linguistic forms which reveals meaning. The concept of grammar is considered to be new and therefore the dichotomies stated earlier would be inappropriate, because function, meaning and communication are included within the study of grammar. So these concepts like function make linguists focus on the language use rather than form.

Spada (2007, p 275) argues that the belief that CLT means an exclusive focus on meaning is a myth or a misconception. Although CLT syllabuses are organized according to categories of meaning or functions, they still have a strong grammar basis (Thornbury, 1999, p.23), in the sense that the functions are directly linked to their correspondent grammatical points to be meaningful. Rutherford (1996) calls this method of teaching consciousness-raising that helps learners relate grammar with meaningful communication. Larsen-Freeman (1991, p.279-280) states that teaching grammar means allowing learners of language to learn and use the linguistic forms exactly with correct meaning.

Methods in CLT were considered as far from the linguistic theories in terms of the processes considered during learning. These processes were evident in Task-Based Language Teaching, Focus-on-Form, Cooperative Language Learning and Content-Based Instruction. All these processes evolved after the CLT approach was well established in the language teaching classroom. So these processes are often referred to as post-communicative approaches. Knowledge of grammar is viewed in terms of function during communication supporting cognitive or constructivist

theories. These approaches are concerned with the learner's efforts in learning the language.

Post-CLT approaches are characterized by a shift from methods to methodology (Crandal, 2000, p. 38). The focus is on consonant with constructivist theories of learning. These theories have tried to integrate the advances of both the linguistic and psychological disciplines. The constructivist approach in language learning (Ausubel, 1968) focuses more on learning and the process than the teacher and result. The emphasis is also on learning through collaboration (Vygotsky, 1962; Brunner, 1983) and thereby the learner acquires knowledge. Learning can be conscious or unconscious and the acquired knowledge can both be unconscious (Schmidt, 2001) and analysis of automatised knowledge is possible (Skehan, 1998). Focus on improving the competence levels of learners with language input was predominantly found in all the post-CLT approaches to language learning (Doughty, 2001) Task-based teaching incorporated Focus on Form and Content-based Instruction (Newby, 2006). All these post- CLT approaches focused on adapted input for explicit teaching of grammar (Ortega, 2000, p.209).

3. The present study

This paper describes a project that has used the insights of Newby (2006), Ortega (2000) and Doughty (2001) while considering the restrictive effects of both form focused and function focused methodology on internalizing the SL grammar to improve communicative competence. The project involved sixteen postgraduate students training to become ESL teachers, who volunteered to participate in investigating the issues.

The objectives of this project were

- to ascertain how effective an FonF methodology in teaching grammar could be for developing communicative competence;
- to prepare a grammar teaching protocol using the insights of the FonF methodology

To explore into the objectives, the project investigated the question of choice between accuracy and fluency, if that were a choice, in grammar teaching methodology and the impact of the FonF approach on learning grammar for communicative competence.

With sixteen postgraduate student volunteers, the project was conducted over a period of three months and in three phases, one phase feeding the next to finally prepare a teaching procedure drawing in the insights from each of the phases.

In phase 1, the participants reflected on the way they learnt SL grammar and on the consequent linguistic and communicative competences they acquired. The reflections were expected to have bearings on an understanding of the duality (accuracy and fluency) involved in grammar teaching and learning. A *think ahead* procedure was used in the next phase to structure the grammar teaching methodology the participants would prefer to use in their teaching from which a grammar teaching protocol evolved in the final phase.

The project facilitated forming certain insights into the purpose of learning grammar in a second language system, and the mechanics of teaching of grammar for both accuracy and fluency.

3.1 Reflective practice and its purpose in this study

It is being progressively acknowledged that personal understandings of teachers and reflections on their teaching have an influential role in developing them as teachers (Almarza, 1996). This insight was used to draw out i. the way the participants learnt grammar in school, ii. their beliefs regarding the effectiveness of such grammar teaching methodology in developing their own fluency and accuracy in using English, and iii. what methodology they would prefer when they start teaching their students.

3.2 Participant reflections

The participants responded to a questionnaire to reflect upon how they learnt grammar. Since reflecting involved metalinguistic and metacognitive faculties, the participants were asked to reconstruct their secondary school grammar learning experiences as the processes would be better etched in their memory in comparison to recapitulating similar learning experiences at the lower levels, i.e. primary and pre-primary.

A questionnaire was used to induce reflection and elicit participant responses with regard to their specified learning experiences.

The questionnaire

- How did I learn grammar?
- What ideologies and principles might have initiated my teachers' approaches to teaching grammar?
- What assumptions have I formed about these ideologies and principles to learn and use ESL grammar?
- Has the methodology helped me in learning/ using grammar effectively?
- What classroom activities really motivated me to learn and use ESL grammar?
- How did I develop confidence in my knowledge of grammar?
- What could be some effective teaching strategies for developing accuracy and fluency with grammar?

Major findings

The participants' reflections led to significant findings that have been discussed here.

Since, at the secondary level, the teaching methodology of their teachers was mostly FonF, contrary to syllabus indications, and rarely deduction of rules from meaning focused activities, the exposure to grammar was form oriented. Grammar learning was consciousness raising regarding grammatical forms and rules. Grammar was practiced more to remember rules than to be used for communication. Contrary to several research findings regarding the negative effects of FonF approach, the participants reported that despite such focus and practice, they developed enough fluency and competence to navigate communication situations with ease, attributing their competence to a proper internalization of the rules for contextual use.

Change to Teacher ideology reflected in such form focused teaching emphasizes that explicit knowledge of rules was what grammar was all about. Teachers also asserted this while teaching grammar.

There was an unconscious acceptance of form focused methodology by all the participants to be an effective methodology as there was hardly any exposure to other approaches. This approach, according to the participants, also provided them with the necessary confidence to overcome the anxiety related to accuracy issues as the approach also enriched their communicative competence.

Grammar rules and subsequent usage were learnt by the participants mainly by answering form focused questions on sentence formation, tense and time and other grammar items. These were supplemented by some writing and a few speaking and reading activities. There was no focus on listening. Each participant produced a variety of evidence of their accuracy and fluency achievements in academic and real life performances, during their secondary school period, even as they also mentioned their failures in both the areas. What they liked about the form focused methodology was immediate feedback that made them realize the gaps in their learning and the opportunities to address the gaps.

The participants remembered being motivated by most form focused exercises as those were quick completion-checking-result processes associated with a sense of achievement that drove them to learn and do well. Failures in achievement were not seen positively so they always tried their best. Although there were some failures in accuracy and fluency, there were many achievements as well to boost their confidence. Having understood much later the advantages of an inductive approach, they felt some amount of function focused activities would probably have helped them better in consolidating the grammar items learnt.

They were confident that the methodology was useful in developing their accuracy, which in turn improved their confidence and fluency. This approach went a long way in handling their anxiety regarding accuracy appropriately. One example given of accuracy helping in fluency was learning the rules of how and where to use the simple present, the 'how' scaffolding the usage.

A week was devoted to discussing what could be some effective teaching strategies to develop accuracy and fluency using grammar. First language production by infants was a point of discussion that demonstrates how babies exhibit evidence of having formed their mini grammar before they are ready to talk. There are shortcomings in their actual production so far as phonology and morphology are concerned but they do not commit errors in major syntactical patterns, for example, in subject-verb placement in statements, e.g. *daddy going*, but never *going daddy*; or in negativization, e.g. *Tina not giving doll*, not *Tina giving not doll/Tina giving doll not*. This is evidence of rule internalization before using the language. Just as babies are ready with their mini grammar rules before they arrive at the production stage, it was

assumed that SL learners should get ready with the grammar rules for achieving communicative competence.

The participants were of the opinion that form focused activities would lead to fluency if the grammar rules had been properly internalized. They also felt that reading and listening should be used appropriately for more exposure to grammar rules in use, and for the purpose of consolidation. Without opting for either *x-to-y* or *y-to-x*, for them the choice was to have a sensible *combination* of accuracy and fluency for secondary level learners.

4. *Think Ahead* protocol

A *Think Ahead* protocol based on the participant reflections was used to structure a grammar teaching methodology for secondary level learners. *Think ahead* was a procedure devised to craft a teaching approach for future teaching out of participant reflections of their grammar learning experience. On the basis of their learning experience, they considered what their preferred grammar teaching practice would be, and tried to explain their preference.

The *Think ahead* questions for them to ponder were:

- What assumptions have I formed regarding my future students' requirements to learn and use English effectively?
- What should be the role of grammar in the present 'learn and use' perspective?
- What will be my approach to ESL grammar teaching?
- Why do I choose this approach?
- How would my learning experiences help me in teaching and my students in learning and using grammar?

Findings

The outcome of individual cogitations has been generalized here.

Learners need to be both fluent and accurate in using English as compromises are not very much tolerated in communicative situations any more. Learners must realize the meaning making role of grammar to be primary in ESL learning, and the teacher role is to encourage learners to make connections between form and meaning.

They felt an interface of the deductive with the inductive would be the best approach since this seems to be the natural grammar acquisition process with babies

in learning and producing their first language. An interface method would utilize the advantages of *noticing and consciousness raising* and practicing the form while emphasizing the importance of output. The interface method would also provide learners opportunities to produce target forms in meaningful contexts. This would be a situation where neither fluency nor accuracy becomes a casualty, and teacher and learners would not have to choose between fluency and accuracy.

The participants' secondary school learning experience was fraught with a paucity of exposure to SL as there was not enough reading and nearly no listening related activities in the language. The impoverished data was a concern for the participants, which they wanted to compensate for their future learners. They were of the opinion to provide ample SL reading opportunities and as much listening as possible to their learners to consolidate the grammar forms they would learn through FonF activities. All the participants agreed on an accuracy-fluency interface so that their learners would receive a balanced input without disregard for either.

The participants identified the disadvantages of adopting either an entirely *x-to-y* or a *y-to x* methodology in grammar teaching since that would lead to an unhealthy choice between accuracy and fluency. The decision was for a *combination* approach where the advantages of both would be retained for the best consequences for fluency and accuracy.

5. Grammar teaching protocol

A grammar teaching protocol that the participants expected to use in their future teaching was developed by using the insights from the participant reflections and the *think ahead* protocol. Respect for the maturity of young adults at the secondary level, with a disposition developed towards being analytical, created the basis for this grammar teaching protocol. The procedure centers on building up students' conscious and explicit knowledge of the rules and facilitating interaction with the rules for internalization considering the general preference for learning in isolation (*field-independence*) as well as learning through integration (*field-dependence*) (Witkin & Goodenough, 1981).

This protocol does not advocate any use of isolated sentence exercises to explain a rule. Rather, holistic tasks stated below are used for the purpose:

- a. Familiarization tasks are to be the first tasks to ensure learner involvement and interaction with the rule/s used. For example, in teaching the present perfect, listening contexts and reading passages where present perfect has been used repeatedly but naturally will be used. Straightforward, precise and clear explanation of the rule, its aspects and form will be presented eliciting those from the texts.
- b. The next level tasks will be where learners use a rule, e.g. using the form and functions of the present perfect simultaneously in contexts.
- c. Tasks that highlight the limits of a rule will be the next ones, where learners are asked to use the rule (e.g., present perfect) but realize that using a particular rule is not possible in the given contexts.
- d. For reinforcement, teacher elicits the forms and the functions of a rule from different reading texts and listening contexts. There will be rule checking and rule enrichment activities to wrap up a lesson.

Discussion of the grammar teaching protocol

The approach involves students' pattern-recognition and problem solving abilities through straightforward, precise and clear explanation of a rule as used in a text, its aspects and form followed by immediate application samples given for rule confirmation and consolidation. Rule elicitation by teachers would not be messy and confusing for the learners to arrive at rule formation.

Simultaneous exposure to form and function has been used in this protocol to strengthen learner belief that language learning is not simply a case of knowing rules. The combinatory procedure is not off-putting for either of the learning styles, field dependent or field independent. Opportunity for more use of rules in contexts is possible due to time saved in the first stage activities used for direct rule exposure.

A major advantage of the combination approach is teacher preference for the approach since in the Indian context teachers are comfortable using a form focused one. This approach does not frustrate learners with different learning styles either. A case in point is Nunn's (2006) advocacy for a 'holistic' approach to SLA task designing where a balance is struck between form and function that provides 'extensive input, focus on meaning, focus on form, opportunities to interact and extensive opportunities for output. It does not assume that students should not be thinking of the form of the message, just because they are required to focus on the

message itself. An underlying assumption is that ways need to be found to encourage students to reflect on the form of the message during the interactive task phases.’ (p.91).

6. Conclusion

During the past twenty years, most secondary school English syllabuses in India abide by the CLT principle to focus to a great extent on fluency and communication skills with incidental FonF and consciousness-raising activities. This approach has not been effective for a number of reasons, the main reasons being insufficient and impoverished input available to learners and an excessive teacher preference for the FonF approach. Secondly, the focus on output/production has not been adequate to guarantee accurate and fluent language use. Thus, in the Indian context, CLT’s fine disregard for FonF has never been entirely accepted, as teachers and parents attach to grammar. But the curriculum planners have a different view of grammar without reducing the importance of communication.

However, in SL teaching and production, this overriding concern of the curriculum for fluency seems to have taken a toll on grammatical accuracy. The syllabus goal of making students fluent in meaning making thus stands at cross purposes when accuracy grossly affects the process. Students’ anxiety to perform with accuracy lessens their potential of fluency. It seems as if the syllabuses jeopardize their ultimate objective through this internal incongruence.

The project described here attempts to demonstrate how without sacrificing fluency, grammatical accuracy can be achieved, and how accuracy can support and justify our concern for grooming secondary level students to become effective ESL communicators.

Meaning in a language draws from using grammar rules appropriately. The participants used a reflective procedure to appreciate the values and shortcomings of both form focused and fluency oriented approaches to teach grammar. The *think ahead* protocol helped in developing insights into the meaning creating purpose of grammar in the language system, and teaching the SL with that focus. Acknowledging the role of both cognitive and analytical processes used by the two types of learners in language learning, the grammar teaching protocol used rules to provide the necessary scaffold to deal with anxieties for accuracy and for fluency. The

exposure to rules was done through a lot of reading and listening texts that represent grammar rules in natural language usage.

The project determines, albeit in a restricted manner, how either entirely focus-on-form or entirely fluency developing methods may not fulfill learner requirements to sustain them in becoming effective producers of ESL. A combination approach can buttress syllabus intentions, teacher efforts and learner endeavours towards that goal.

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Holistic Learning, First-Person Voice and Developing Academic Competence¹

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Abstract

In this paper I examine research reports written by students to establish a connection between a systemic approach to language choice in context and a holistic and constructivist philosophy of learning (operationalized through project-based learning). My interpretation of some recent (2011/2012/2013) results of a transitivity analysis of students' project reports indicate that the holistic course design involving creative research activities may have an important influence on the range of transitivity choices made by competent students. The frequency and quality of the use of a first-person voice in the text analysis results appear to be related to students' empowerment as active agents in their own learning process. I will argue that the first-person is often an appropriate choice by interpreting data from reports in which students frequently and naturally chose the first-person and from a report in which students were encouraged to avoid it.

Introduction

A systemic approach to language helps provide a view of competence that highlights the ability to make appropriate choices in context. It is not common to relate systemic linguistic analysis to approaches to learning, but I will argue in this paper that it is

¹ This paper has been radically modified based on feedback on a keynote presentation at the 9th International Congress on English Grammar (ICEG 3-5 January, 2013) at VIT University, Vellore, India. (Jan 5, 2013)

possible to relate language choices made in context to a constructivist approach to holistic learning (Vygotsky, 1988) in the form of project-based learning. I first focus on transitivity from a systemic linguistic perspective (Halliday & Matthiessen, 2004) discussing the results of a transitivity analysis of students' project reports that were evaluated during the academic years 2011, 2012 and 2013, and also academic journal articles from my long-term (7-year) research project into academic competence at a university for Petroleum Engineers in the UAE. My interpretation of the results indicates that the nature of the holistic project-based course design involving creative research activities had an important influence on the range of transitivity choices made by competent students. The frequency and quality of the use of a first-person voice in the research results appear to be related to students' empowerment as active agents in their own learning process.

These results can usefully be compared to the results of an analysis of the use of the first-person in a set of academic articles (Nunn et al., 2012b). In these papers we observed far more limited use of the first person, but it was nonetheless important in that it was highly strategic use to indicate an original contribution to the field by the authors/researchers as in the following example (Pillay et al., 2010):

Our group has developed an ultrasensitive technique for assessing the distribution of minor metals in reservoir rock samples.

From a holistic systemic perspective, transitivity choices are not made in isolation. Interpersonal choices related to 'epistemic modality', for example, are made simultaneously. In table 1 below we see how the first-person voice (transitivity) is mitigated by the same authors who choose lexis that has the interpersonal epistemic function of expressing caution about the results. One effect appears to be making the personal claim more modest.

Table 1 Epistemic modality combined with first person use from Pillay et al.(2010)

Whether or not this theory has been verified <i>is not clear</i> , but <u>our</u> work <i>tends to lend credence</i> to the view that differences in such transport properties <i>could exist</i> .	The authors' new interpretation, expressed with caution – 'is not clear', 'tends to lend credence to the view that'
This leads <u>us</u> to believe that such penetration	The authors' unique interpretation

<i>could have taken place</i> through a hairline crack or fissure as <u>we</u> observed in Figure 7b, and that the unbroken proofing itself was impervious to the seawater.	of their own data expressed with caution
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Adopting a systemic approach to language use has definite implications for the design of learning and assessment activities. Systemic linguistics highlights the view that writers must constantly make linguistic choices as their argumentation develops. Activities that are designed in a way that students constantly need to be taking responsibility for their own decisions are therefore allowing students to develop this aspect of academic competence. To be able to make appropriate choices in a *real* context, students need to be engaged in an authentic activity such as reporting their own research. The data cited in table 1 also supports my view that the types of activity that provide practice in epistemic modality use also provide practice in making appropriate transitivity choices and that these choices are made in combination. The key unifying factor is the way we provide a holistic context for students to make competent choices about how they represent reality based on their own *knowledge creation*.

In Nunn et al. (2012a), we discussed a student design report that embodies just such a process of construction. We analyzed the transitivity of the text within the context of a process of creation, and also presented our interpretation of the process of creation in relation to the first-person voice used so frequently in the text. In this paper, I focus on a different report from different classes in the same university using the same type of course design using the same constructivist project-based approach. I find a similar outcome: extensive use of the first person voice as illustrated in table 2 below:

Table 2 Distribution of Transitivity Choices in a Student Project Report

	Be clauses	Active clauses	Passive clauses	First person	Word count
Totals	303	430	109	184	10,041

First person usage most frequently corresponded to the choice of an active voice. It was also interesting to note that in both the journal articles and the students' reports the active clauses and 'be' clauses in combination far outnumbered the passive clauses as is further illustrated in extract 1 below.

Extract 1

This section is to demonstrate the team's understanding of the project in order to avoid all kinds of misinterpretation and any possible confusion between us and the client. According to our client, Colorado School of Mines, we are to design a sustainable village that has a sustainable living, energy, architecture and construction. Our second objective is to have a renewable energy source. This means that the source of energy should not pollute the environment or the surroundings such as wind power and solar energy. The objective also means that the source of energy should be convenient and long lasting. The third objective is zero waste. That means that the total waste of the village is to be either recycled and/or dumped in an environmentally friendly manner. As we are living in an Arab and Muslim culture, therefore our fourth objective is to design a village that meets the culture standards and provides a good social and communal life. Finally, our village will shelter 50 families with low income, and we are to find a way to connect those families with the outer world using computers, phones and internet. Our village will be located in Ras Al Khaimah, a city in the UAE's poorer northern emirate.

When determining levels of competence, the reader or assessor inevitably makes value judgments about the appropriateness of the choices made. In extract 1 above, my argument for rating the choices as competent is based on the way the students link the choices to their communicative objectives as stated in "This section is to demonstrate the team's understanding of the project in order to avoid all kinds of misinterpretation and any possible confusion between us and the client". The team accepts its own responsibility towards the client requirements and links this to their adoption of first-person agency as in "Our second objective is to have a renewable energy source. This means that the source of energy should not pollute the environment or the surroundings such as wind power and solar energy". A further example of their understanding of the requirement is presented with a first person agent in "and we are to find a way to connect those families with the outer world using computers, phones and internet". At the same time, it is logical that the team uses first-person agency to accept intellectual ownership of the design as in "our

village will shelter 50 families with low income” and Our village will be located in Ras Al Khaimah.

As a requirement of the project was to explain the thinking behind their design, I also consider that appropriate transitivity choices were made in extract 2 below as illustrated in “By that we mean that the source of energy should not pollute the environment or the surroundings such as wind power and solar energy”. The sense of reality which is the strength of this type of assignment is further illustrated in “While designing the village, we faced many constraints and limitations which hindered progress of our design.”

Extract 2

Following the requirements from our client, we have perceived a design for a sustainable village. We named it after the great leader late Sheikh Zayed bin Sultan Al Nahyan. Our client was looking for a village which in itself will be a community to support 50 culturally diverse families. A sustainable living, energy, architecture and construction were our main focus. Sustainable energy for us means free energy. By that we mean that the source of energy should not pollute the environment or the surroundings such as wind power and solar energy. While designing the village, we faced many constraints and limitations which hindered progress of our design.

First Person Use or First Person Avoidance

Guo (2012a and b) provides detailed corpus evidence indicating that the sometimes denigrated first-person is frequently used in academic writing and also in scientific writing and she is able to identify legitimate academic purposes for its use.

These studies produced convincing frequency data showing that academic writers do utilize first person pronouns very often in their writing (Guo 2012a, p.7)

Guo’s detailed literature review concludes:

Corpus-based studies have produced empirical evidence that first person pronouns often serve as an effective tool for academic writers to indicate their authorial presence in texts they construct. (Guo 2012a, p.12)

The Chicago Style Manual (which is recommended by IEEE, the style commonly required by several engineering disciplines) does not require an impersonal voice.

As a matter of style, passive voice (the matter will be given careful consideration) is typically, though not always, inferior to active voice (we will consider the matter carefully). The choice between active and passive voice may depend on which point of view is desired. For instance, the mouse was

caught by the cat describes the mouse's experience, whereas the cat caught the mouse describes the cat's.

<http://www.chicagomanualofstyle.org/home.html>

Two highly prestigious international scientific journals, "Nature" and "Science" also strongly encourage the use of the first person in conjunction with the active voice. They explicitly link this to clarity and direct communication.

Nature journals like authors to write in the active voice ("we performed the experiment...") as experience has shown that readers find concepts and results to be conveyed more clearly if written directly. (*Nature*: http://www.nature.com/authors/author_resources/how_write.html)

The journal 'Science' asks authors to use the active voice with the first person where appropriate, the example below indicating that the kind of agency for which our senior design students were encouraged to use an impersonal 'this team', would be most appropriately conveyed with a simple 'we'.

Use active voice when suitable, particularly when necessary for correct syntax (e.g., "To address this possibility, we constructed a λZap library...", not "To address this possibility, a λZap library was constructed..."). (*Science*: <http://www.sciencemag.org/site/feature/contribinfo/prep/res/style.xhtml>)

Traditionally the first person may have been avoided in academic writing. One argument that I have heard locally is that it appears unprofessional to use a first person voice, in particular the first person singular pronoun. In our context, students do projects of the type described above and then go on to do a full senior design project in their senior year prior to graduation. In the following example from a senior design report, to avoid using the apparently proscribed first person to refer to their own agency, the students use a first-person substitute, 'the team'.

Extract 3

In order to accomplish the required task **the team** went through the design process and evaluated many possible solutions to choose the most suitable design. In addition, **the team** built and tested the prototype produced which confirms that the device has the capability to identify the materials with an error of 0.33%. During the design stage **the team** considered the economical factor and designed the system in a way that the owner can regain his/her capital investment in 5 months by advertising on the body of the system. The total cost of the prototype is 10,000 AED, and this cost can be reduced significantly by mass production. In addition, the accessibility and maintenance factors were considered; hence, **the team** located the circuits and all components in a way to simplify the maintenance procedures.

In extract 3, the agency of the student team is clear in that they ‘built and tested a prototype’ and present themselves as responsible agents, not only in this extract but throughout the report. Another example is provided in extract 4 in which the students explain the problems they resolved and provide an explanation of their choice of design, clearly accepting responsibility as designers and agents of the research and the research report.

Extract 4

The team faced several problems during the designing of the project such as the unavailability of components, which lead in ordering most of the components from outside the UAE, hence a delay in the process. In addition, because the device will be located in a noisy environment **the team** had to do calibration for the sound identification subsystem, and tried several methods for eliminating the noise.

In this report **the team** presents a detailed explanation of the prototype operation and illustrates the rationale of choosing the components, methods, and subsystems. In addition, **the team** included a description of many aspects of the design, such as health, safety, environment, economical, and ethical factors.

Table 3 below, provides a brief quantitative summary of the transitivity analysis of the text. I classify the use of ‘the team’ as first-person avoidance. Our qualitative analysis cannot identify an academic reason for avoiding the first person and investigation revealed that this was an imposed choice by one instructor rather than their own.

Table 3 First person Avoidance: Distribution of Transitivity Choices in a Senior Design Report					
	Be clauses	Active clauses	Passive clauses	First person Avoidance	Word count
Totals	238	299	248	3 (65) we = 03 the team = 62	8138

A more detailed table (table 4) providing full details of the transitivity distribution across the whole text is provided in the appendix. The annotated text analysis reveals that all three uses of ‘we’ were in the acknowledgements section. It is also noticeable that the passive voice does not dominate in any major section of the text but it is most frequent in sections of the text which describe a physical process as in extract 5 below, where a stage by stage process is described and the agent is not significant.

Extract 5

Recycling process is a three step cycle. Firstly, collection and processing of recyclable materials takes place, then the manufacturing of recyclable material, and finally the purchasing of recycled products. In some communities, recyclable materials are collected in special containers for curbside pickup, while others have drop-off centers or use deposit/refund centers to help encourage residents to not throw away recyclables. After the materials are collected they are transported to a Material Recovery Facility (MRF) that is responsible for the sorting process of recyclable materials. In these facilities, the materials are cleaned and separated into their individual categories.

In extract 6 below, we can work out that the team members are agents but it is not clearly stated so the reader needs to deduce that it is the students who are proposing the solutions. Agency is similarly disguised in ‘It was determined’ when we can come to a reasonably safe assumption that ‘we determined’, meaning the author/researchers determined, is what was actually meant. Of course it may be argued that the reader can work out agency here, but it is still slightly disguised for no apparent purpose unless the aim is to appear more ‘objective’. I assume that just appearing objective is not the aim of competent research writing. What makes this sentence competent is the supporting argument identified in italics below.

Extract 6

Two solutions were proposed for this subsystem. The first is the solenoid actuator, used to knock out the coins from a cylindrical tube. ... The two methods were developed, built and tested for performance assessment. It was determined that using a heavy duty solenoid is more reliable *because the control of the rotational operation in the DC motor is not precise and depends on the number of coins stacked in the tube*. Regarding the role of economics in the decision made, the solenoid actuator is cheaper commercially than the high torque DC motor required for this application.

Table 4 below illustrates the unpredictable nature of first-person usage even within the same local context. The senior design report illustrated in table 3 was an electronic engineering report. Another electronic engineering report from the same institute has a very different transitivity profile in terms of first-person use. One of the supervisors is common to both.

Table 4 A Senior Design Report with Extensive First-Person Use					
	Be clauses	Active clauses	Passive clauses	First person use	Word count
Total	178	306	141	99	6630

The example in extract 7 below is interesting in that the students take direct responsibility for their assumption with a full justification of the assumption. The choice of lexis also makes the epistemic modality choice transparent.

Extract 7

We will assume the robot starts from the corner (the beginning) and starts moving towards the obstacle, then the front sensor will order the robot to turn 90 degrees to the left in this case which allows the right sensor to start reading the reflection from the obstacle.

In extract 8 below, there are several surface errors which do affect the professional competence of the text, but the transitivity choices and modality choices are again interesting. They provide evidence to support a strong claim without mitigation and transparently claim their own product is superior. Whether this is a wise academic practice may be open to debate, but it is certainly transparent.

Extract 8

Table 3 shows that our product not only has a competitive price but very good quality. Our team studied closely the first two products (iroboot, and Neato) and we found many problems on their designs, for examples the Neato charging time 3 hours but it last for less than half an hour .Also, iRobot sometimes it get stuck in the same place. In our design we were able to manufacture a competitive product with a new behaviour.

Conclusion

I have used evidence from report analyses to highlight transitivity (and modality) choices students made. Awareness of the choices and the implications of choosing one rather than another are at the heart of competent self-regulated behavior. If competent (professional) behavior involves weighing up the choices and deciding which one is most reasonable or appropriate in context, it would be unhelpful to restrict choices per se in assessment practices. It would be particularly ironic to claim that preventing the choices of the personal transitivity choices (whether the active or passive is chosen) actually makes a text more professional. It may give the text *an appearance* of greater objectivity, but this appearance is an illusion if it represents a lack of clarity and transparency. If the author's agency is there, the choice of transparently and clearly displaying this to the reader should be available. Though not the focus of my paper, in our internet age where plagiarism is both easy and common, in a text such as extract 8, we do not doubt that we have the students own transparent

and authentic voice, faults and all. In my experience, a self-motivated project activity tends to produce this kind of authentic writing. I find it easier to work with students to improve a final draft of what is clearly their own voice than to read a polished impersonal text of dubious origin from an activity which does not engage the student and may potentially lead to unethical practice by students. Holistic learning activities engage the students as whole people and this is transparent in their writing. Once confronted with slightly flawed authentic student writing, a teacher may then work on helping students improve the draft.

As a linguist and text analyst, I have not found an academic reason to explain why ‘we’ is apparently considered less ‘objective’. This view appears to assume that an appearance of objectivity is the same as objectivity. The students’ use of the impersonal ‘this team’ in extracts 4 and 5, might provide an appearance of objectivity but if the aim is to disguise agency, its scientific legitimacy is questionable. When there is personal intervention in the research process, it might be important for the reader to know this. However, students must also consider their audience. If the audience is opposed – for whatever valid or invalid reason – to the use of a first person, it might be expedient in the short term to provide the audience that evaluates and rates competence with the kind of text they prefer. If we consider that competence is partly defined as the ability to make appropriate choices in context, the question still arises as to whether this kind of restriction is not a limitation on learning competent behavior. Academic and scientific writing are on the move, but it is important for apprentice academic authors to make informed choices based on reasoning and evidence.

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Appendices

Appendix 1: Table 3 extended. Generic Structure and transitivity distribution

	Be clauses	Active clauses	Passive clauses	First person
<u>Executive Summary:</u>	1	21	12	12
<u>Acknowledgment:</u>		3		3
Chapter I: Introduction / Background				
1. Introduction:	6	14	7	0
2. Background:	1	1	2	0
2.1 Recycling collection Systems	4	6	1	0
2.2 Sorting mechanisms	6	12	3	2
3. Problem Statement, Constrains and Specifications:				
3.1 Problem Statement		3	1	2
<i>3.1.1 Original client statement:</i>	2	1		0
<i>3.1.2 Revised client statement</i>	3	12	4	2
3.2 Constrains			1	0
<i>3.2.1 Non-Technical:</i>		2		0
<i>3.2.2 Technical:</i>	2	2	1	0
3.3 Specifications:	1	5	2	2
4. Project Goal and Objectives:		5		2
Chapter II: Solution/Design	2	3	3	1
1. Full Design Description:	20	20	24	2
2. Subsystems Detailed Description:	2	1	3	1
2.1 Input Subsystem:	10	15	8	3
2.2 Material Identification Subsystem:				
<i>2.2.1 Alternative solutions:</i>	25	24	12	3
<i>2.2.2 Implemented solution:</i>	58	41	48	4
2.3 Weighing subsystem:	12	9	14	1
2.5 Payback subsystem:	9	2	8	0
2.6 Solar Tracking Subsystem:	3	1	4	0
<i>2.6.1 Tracker Type</i>	16	10	9	1
<i>2.6.2 Tracking Technique:</i>	7	7	3	1
<i>2.6.3 Light sensors types:</i>	6	3	2	1
<i>2.6.4 Motors:</i>	6	2	5	0
<i>2.6.5 Implemented Algorithm and Circuit:</i>	4	5	3	0
<i>2.6.6 Role of Economics:</i>	4	3	8	0
2.6.7 Implementation and Testing Results:		6	1	1
2.7 Powering Subsystem:	13	13	11	6
3. Economics	6	9	7	2

4. Social/environmental Impacts	1	3	1	0
5. Health and Safety Issues	5	7	6	1
6. Ethical Issues	1	4	3	5
7. Testing and Validation Plan and Implementation Results			2	1
7.1 Testing process:			6	0
7.2 Testing schedule:		1	2	0
7.3 Implementation Results:	3	2	1	1
8. Sustainability			5	0
9. Manufacturability		1	1	1
Chapter III: Recommendation and Conclusion				0
1. Recommendations:		3	3	1
2. Conclusion:		4	5	3
Total	239	286	242	65

Appendix 2:

Table 4 extended. A Senior Design Report with Extensive First-Person Use

	Verbs to be	Active verbs	Passive verbs	First Person
Executive Summary:	14	29	5	11
Acknowledgment:	1	2	0	2
Introduction and background	17	21	32	13
The problems statement and specifications	9	11	4	2
Project goals and objectives	3	5	0	0
Design and Solutions	109	186	78	42
Economics	2	8	0	6
Social/environmental Impacts & health & Ethical issues	13	27	10	11
Testing & Manufacturability	6	5	9	7
Conclusions and Recommendations	4	12	3	5
Total	178	306	141	99

Content and language Integrated Second Language Learning: Misrepresentations of Basic Principles in the UG English Curriculum of Engineering Courses

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Biodata

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Abstract

Philosophical investigations into the structure and nature of language still have not come to a consensus on the role of meaning in interpersonal communication, that is language in use, and the position it occupies in language per se, that is as it exists in normal situations. The issue whether it is meaning-determinism or relativism is still left unresolved in the pedagogy of a second language. If meaning holds an upper hand, the teaching-learning of a language, especially a second language can dispense with the explicit elucidation of the formal features, ie. the grammar of the target language. On the other hand, if it is a case of 'learning how to mean' in a second language, the role of formal instruction and conscious learning needs to be reasserted. One approach, which has been tried out recently for minimizing conscious learning and promoting subconscious acquisition of the target language is Content and Language Integrated Learning (CLIL) which integrates content into second language instruction. Here, ESL learners feel more attached to, and more engaged in the processes of meaning making, because the degree of conscious learning becomes less as the curiosity and inquisitiveness about the world of reality get more and more satisfied. But how effective, in terms of communicative competence, are the under graduate engineering courses which follow the content and language integrated learning (CLIL) curriculum is a matter of debate. A field study conducted among the students of science and technology, suggests that a mere change in textbooks has not made much difference in the language classes; in fact, textbooks based on CLIL

model are not handled the way they are envisaged to be. They are approached with a traditional pedagogy and methodology. This paper tries to investigate the problems which teachers as well as learners of English face in the UG Engineering courses at Anna University. It also tries to come up with some practical suggestions to enhance the effectiveness of the classroom teaching and learning of the CLIL curriculum.

Introduction

In recent years, second language classrooms in India have been witnessing a shift in focus, and the trigger for this change in language education happened to be the new mode of economy that started to proliferate in India from the early 1990s. The needs and requirements of the job market offered by the modern corporate tycoons have created a special need for the teaching and learning of English for practical purposes, thus moving away from the traditional teaching of English literature. No wonder most of the universities and colleges modified their second language curricula to suit the needs of the market and industry.

The majority of the universities and colleges in our country is now trying to adopt a Content and Language Integrated Learning (CLIL) approach for teaching their science and technology courses. This is based on the assumption that when language teaching-learning aims at supporting the content, which the learners are partly familiar with, and the rest to be explored by them, it will result in a better learning experience and, thus will enhance the possibility of a better functioning in the second language. This paper attempts to analyze the hypothesis mentioned above, and the effectiveness of such curricula in the achievement level of the learners of Engineering and Technology. .

Content and Language Integrated Learning (CLIL) is a dual- focused educational approach which is used for the learning and teaching of both content and language. In this approach, both are interwoven to the extent that the learner may not be consciously aware of the fact whether the focus in a given unit or lesson is on the content or the second language which is the medium of instruction, here English. Educating in a language, which is not the first language of the learner, is as old as formal education itself. From the ancient Roman education system to the current smart classrooms, it has only reformed its styles and strategies; with the core idea of learning content in the target language, silently but strongly present throughout the centuries. The recently revived interest in CLIL has to be analyzed in view of the growing demands of the present political, social and economic global conditions.

Globalization and the forces of economic and social convergence have had a significant impact on deciding who learns which language, at what stage in their development, and in which way.

Defining Content and Language Integrated Learning

The term ‘Content and Language Integrated Learning’ (CLIL) was adopted in 1994 (Marsh, Maljers and Hartiala, 2001) within the European context to describe and further design suitable educational practices at school, college levels, where teaching and learning take place in an additional language other than the mother tongue. CLIL is an educational approach in which various language-supportive methodologies are used which lead to a dual-focused form of instruction where attention is given to both the language and the content. It is not teaching a non- language subject in a second language; but *with* and *through* a second language.

Since all efforts of teaching and learning a second language in a formal set up like a classroom have certain degrees of inherent artificiality , the only way to make it as realistic as possible is to make it real life-oriented. Paradoxically, it is this orientation that serves as the triggering force as well as the process of successful communication, too. That is to say, in the case of successful second language learning, the starting point, the processes and the destination—all become one and the same, namely social interaction. To put it in another way, only that language curriculum which is grounded in real life, progresses through real life experience and leads the learner to the fulfilment of material as well as higher order cognitive needs of future, is expected to be successful in the classroom.

Language evolves meaning from the social interactions where the learner engages himself in a cognitive process of meaning construction. This interaction, which involves psychological processes at deep linguistic levels, shapes the language and thought patterns of the individual by exposing him to the speakers of the target language and its social functions in the speech community. (Here, the term ‘speech community’ need not necessarily stand for the native speakers, it refers to the users of English in the Indian multilingual society.) If language is evolved through continuous interaction with the speech community, then it has to be learned and taught in an ‘interactive- transactional’ way, which is supported by the social functions of the

language. In other words, if language is a social product, language learning must follow the processes of an individual's socialization.

When it comes to the framework of education, the content, conveyed through language is very crucial in any language class. Content in the classroom runs parallel to reality in life. Like language mediates reality in real life, the language which is the medium of instruction negotiates meaning in the classroom. And, meaning is naturally inherent or made embedded in the content of the subjects taught. "Content is the subject-matter around which semanticisation takes place in personal and group context, which implies specific language structures through which cognitive and metacognitive processes are developed" (Grenfell, 2002, p.40). The CLIL classroom aims to utilize the potentials of language to explain, explore and analyse contents, which are supported, by suitable, contextualised and specific language. A particular chunk of content requires a special thinking strategy and, a special thinking strategy requires a special language to express it. Here, the content is integrated with language and language acquisition happens meaningfully in a contextualised manner. Grenfell develops this concept stating: "some content involves ways of thinking which require specific cognitive processes, which in turn call upon particular concepts and ideas and the language to express them" (Grenfell, 2002, p. 40). Therefore, the content can improve language learning by requiring thinking skills, which need specific structures. According to Grenfell, 'a sensitivity' to content can help in the shaping of schematic knowledge about the world. Such systematic knowledge (of grammar and vocabulary), will contribute in turn to mental processing skills which are metacognitive, cognitive and social.

The correlation between language and cognitive development has always been an area of interest for psychologists and educationists. Developments of common cognitive skills are as important as exposure for second language learning. Such cognitive skills include sequencing, sorting, grouping, hypothesising, recognising, decision making, classifying, contrasting, testing, problem solving and making predictions (Chipman, S F, and J W Segal, 1985) All these cognitive processes require particular sorts of language. When the content learning makes learning of language essential, language learning becomes more meaningful and the learner feels the compulsion and necessity of learning the language.

Models of CLIL Classrooms

CLIL experts (Coyle, Hood and Marsh, 2010) suggest three models of CLIL classes for tertiary level. They are Model C1, C2 and C3 respectively.

Model C1: Plurilingual education: More than one language is used through CLIL during different years in related content programs. Here, the learners are expected to master content and the ability to be sufficiently skilled in more than one language prior to entering working life or further studies. Moreover, in this model, language education is closely linked to prestigious forms of higher education where internalization is viewed as a key part of institutional strategy to attract and retain high performing students from different countries.

Model C2: Adjunct CLIL: Language teaching runs parallel to content teaching with specific focus on developing the knowledge and skills to use the language for achieving higher order thinking. In this class, language is field-specific (e.g. Mechanical Engineering or Physics) and here language teachers are embedded in the respective subject departments and, not seen as external providers. Here, students are encouraged to learn content and gain mastery over language, simultaneously.

Model C3: Language- embedded content courses: Content programmes are designed from the outset with language development objectives. Teaching is carried out by content and language specialists. In other words, such classrooms offer opportunities for team teaching. Students who are not so proficient in the target language will benefit from such classes, for they could avail themselves of dual learning facility from such classes.

Model C1 can be implemented only in very specific types of higher education institutions (e.g., business and management faculties where students attend courses with a reasonable level of proficiency in the target language) Models C2 and C3 are more suitable for our educational system.

But, do we have such a CLIL classroom in our educational institutions? Have we successfully implemented the CLIL model in our colleges and universities? The curricular models, which exist under the title CLIL in our colleges need to be examined thoroughly at this juncture.

Current CLIL classrooms and their effectiveness

An informal survey conducted among the engineering students of Anna University, Chennai (South India) and my teaching experience in a college in the same university gave a different opinion about the CLIL implemented in those classes. Subject-related topics are taught for improving the language skills of the learners. The question is how they are integrated into a unified whole. Most of the students feel that they are not able to connect the language class experience with the content, which it tries to relate to, in their subject classes. They also were not able to identify the support of the language classes directly in their subject classes.

Here, both the streams move as separate watertight compartments with no connections or synthesis at any point. Therefore, the content which was imparted through the target language remains only in the language class and, the learnt language items also remain within the four walls of the language classroom. In such classrooms, the subject is taught in the target language; and not with or through the target language.

Survey results

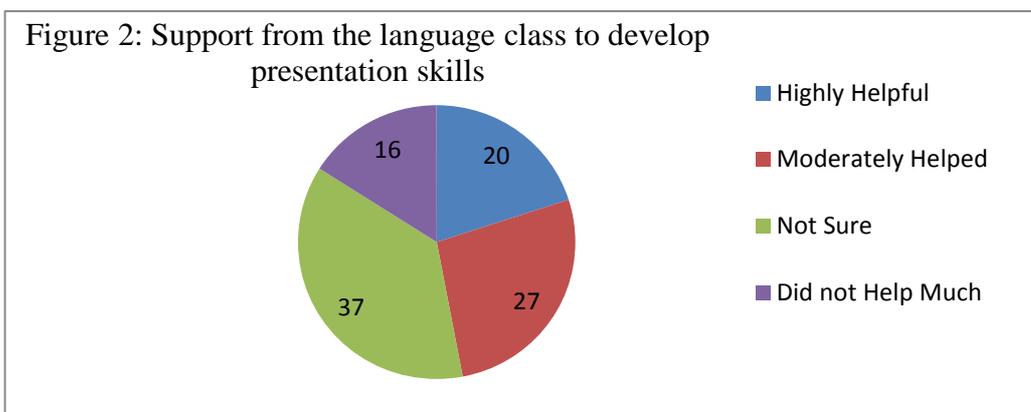
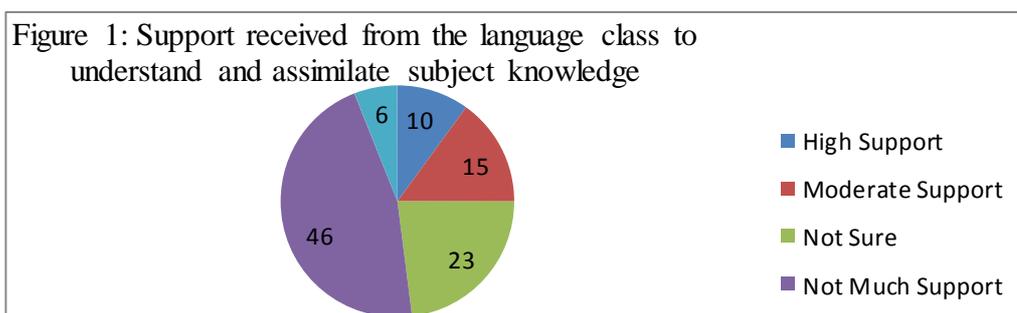
One hundred students who have completed their B.Tech. course at Anna University and who were selected by a major IT company as 'Associate Engineers' (apprentice trainees) were given a qualitative questionnaire on the effectiveness of CLIL method that they have experienced in the ESL classes during their UG programme.

CLIL in tertiary level Engineering and Technology classrooms

It has been observed that mostly subject classes (and at times even the L2 classes) tend to use bilingual method or translation method where the content is delivered in L1 and then translated to L2 or vice versa. There are also instances of some of those sessions where students solely opt for L1. In such an educational condition it is impossible to achieve the aims of CLIL methodology. Moreover, the language sessions, which propagate a CLIL method in the classroom, also adapt the translation method, due to various compulsions such as demand from the regional language medium students, lack of learner involvement in the learning activity and the difficulty in understanding English. This also points to another critical component in the implementation system of CLIL method: the teachers. The teachers, though expected to impart CLIL based language learning, hardly followed the core concept of the pedagogic construct and continue in the traditional translation method, which

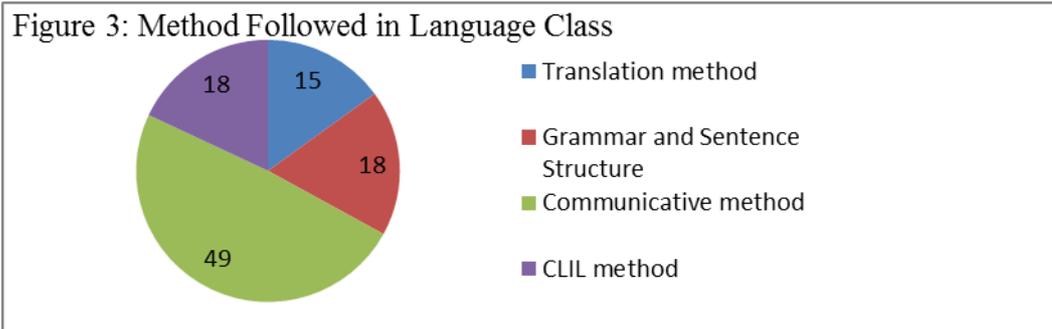
completely dilutes, if not negates the CLIL concept in the tertiary level language class. The content presented in the language textbook also poses a hindrance to the language teachers, who with their little background knowledge of the content, struggle to relate themselves to the topic presented in the textbook and thus become eventually demotivated to impart the CLIL method in its true essence.

During the survey, the participants were asked ‘how much support did you receive from your language classes to understand and assimilate your subject knowledge?’, to which the majority gave the option “not much support”.

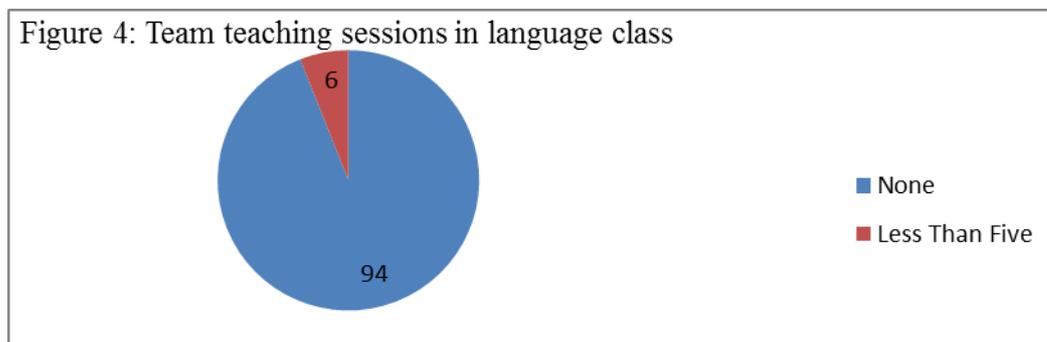


They also opined that they are ‘not sure’ whether the content integrated language classes were of much use for the presentations and projects that they made as part of their core subject classes. (Refer Figure 1 and 2)

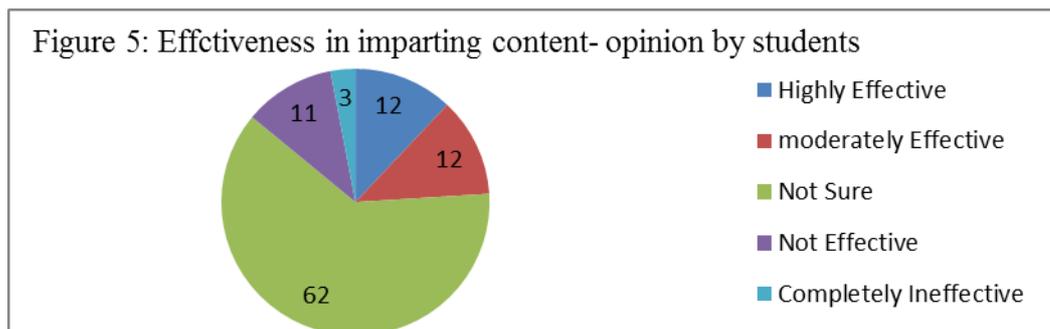
Another question aimed to check which language teaching method was followed in their ESL classroom. Figure 3 shows almost 50% percentage of the students opined that their teachers used communicative English with special emphasis on speaking and writing. Only 18% of the students were exposed to CLIL method, despite the fact that their textbooks were envisaged to follow CLIL method in its transaction. CLIL strategies were replaced by other teaching methods in the actual classroom.



Another factor, which points to the ineffectiveness of our CLIL classrooms, is the lack of team teaching, which is one of the most effective techniques to achieve success in CLIL classrooms. Efficient team teaching rarely happens in our colleges. Figure 4 gives a strong testimony to this argument. Only 6% of the total sample ever experienced effective team teaching in their language classes.



An informal discussion with teachers (language and subject teachers) revealed that hardly any team teaching has been experimented in the tertiary level language classroom. The language teachers study the content presented in the language curriculum, which is highly subject related (and many of them struggle to study) and try to impart the content as effectively as possible. Here, the language teachers makes a great effort since the content is not from their domain and there is not much help in terms of content and pedagogy available around them. These teachers largely felt that they are not competent enough to deal with subject related topics and it affects their teaching performance in the classroom. Most of the teachers try to overcome this problem by focusing only on language-related topics discussed in the text and simply neglect subject topics which they feel difficult to handle. The survey results (as shown in Figure 5) also helped to confirm this opinion.



Language teachers felt that they should get sufficient support from the subject teachers and thus the contribution of both the parties can be made more meaningful and effective. They also feel that team teaching could become an apt solution for this problem, but the tight academic schedule hardly leaves any room for such efforts, for teachers are busy in ‘covering the prescribed portions’ by the given schedule.

Lack of learner motivation is another major factor that decreases the effectiveness of the CLIL sessions. The learners are not aware of the need of an integrated curriculum and methodology. They do not get the big picture where language becomes the vehicle to shoulder the content, and the subject becomes the tool to master language skills, which could motivate them to explore further. A joint effort by language and subject teachers never takes place to clarify this concept. Therefore, learners are obliged to view the whole strategy in fragments and thus CLIL loses the purpose that it is meant to serve. The detailed survey results are given in Appendix 1.

All these data suggest that the CLIL method, which is demonstrated through ESL textbooks at the UG level ESL classroom, is not very effective and the learners do not benefit much from the CLIL syllabus.

Is CLIL a difficult target to achieve? Do we ever practice that method at any level of our education system? Well, a detailed analysis of the ESL curricula at the primary, secondary and tertiary level ESL curricula of India that follow the guidelines set by National Curriculum Framework 2005 (NCF 2005) suggests that content integrated language learning strategy should be practiced in the initial years of second language learning, for example in the primary school curricula. In those classes (where English is the target language) when the teacher asks the students to perform tasks or activities or tell them stories or when they recite rhymes, the focus falls equally on content-mastery and language proficiency. Indirect learning of language happens and those learners are highly motivated. Teachers use the target language to impart content and,

through content, they introduce vocabulary, grammar and sentence patterns to these young learners. When the teacher asks the young learner to identify objects in terms of shapes such as triangles and pentagons, she is teaching vocabulary, as well. When the learners are encouraged to ask questions in the class, it is an opportunity to widen their content -mastery as well as language proficiency.

As and when we progress to higher education, the focus seems to shift to content and the concept of language-integrated learning to content mastery slowly vanishes from the context. Again, when it is re- introduced at the tertiary level, it is neither effectively conceived nor executed. Students have largely failed to respond positively to this idea. In fact, during the survey, the majority spoke against learning content in their language classroom too. They demanded for lessons, which would more creatively engage them by capturing and retaining their attention. They were not much motivated to go through the content, which they had already learned in their subject classrooms.

However, I am not sceptical about the possibility of enhancing language skills and functional ability of ESL learners with the help of CLIL strategies. I have witnessed, participated and practised rather effective CLIL sessions during my short tenure as a language trainer with a leading software company.

The newly recruited software engineers of that Indian MNC undergo a 90-day rigorous training, titled Initial Learning Programme (ILP) where they acquire skills in software development and in Business English. The curriculum is framed in such a way that the software development cycle goes hand in hand with the language learning sessions. The internalization of the theories and the supportive learning activities of ESP (English for Specific Purpose- here, Business English) sessions contribute to the effective performance of the associates in real life. Most of the Business English sessions are attended and supported by the software trainers and the software development sessions are monitored and assisted by the ESP trainers. This kind of a CLIL atmosphere enabled o bring in an effective language and content learning and contributed to provide a long lasting learning experience to the learners.

At the moment, it cannot be ruled out as an impossible target to adopt and achieve such a system in our colleges and universities effectively. What it needs is a better

policymaking, curriculum planning and implementation strategies to bring in quality enhancement in our CLIL classroom.

One of the most powerful resources that people in any organization have for learning and improving is each other. Knowledge economies depend on collective intelligence and social capital- including ways of sharing and developing knowledge among fellow professionals. Sharing ideas and expertise, providing moral support when dealing with new and difficult challenges, discussing complex individual cases together- this is the essence of strong collegiality and the basis for professional communities.

(Hargreaves, 2003, p.84)

The experience of the researcher in language learning environment which used CLIL method for effective ESL learning, has enabled her to come up with a few practical suggestions which if adopted judiciously, can enhance the effectiveness of the ESL learning at the UG level science and technology classroom.

Suggestions for enhancing the effectiveness of CLIL classrooms

- a) Those who are interested in CLIL – language teachers, subject teachers, program managers and other professionals- should engage in the construction of a shared vision for CLIL.
- b) If this concept is new to the organization, then a thorough study of the needs, scope, possibilities of implementation and existing successful systems has to be conducted. The curriculum has to be formed with the collaborative effort by all the stakeholders. Rigorous monitoring and intervention by experts are needed at each stage.
- c) Analyzing and personalizing the CLIL context to suit the learner needs is imperative.
- d) Measures for developing and implementing strategies and tools for monitoring and evaluating CLIL in action are to be perceived in advance.
- e) Effective teacher training programmes must be envisaged which provide the traditional teacher an opportunity to unlearn the traditional teaching strategies and re-learn the modern teaching methods and techniques.
- f) A suitable work atmosphere must be created which can encourage teacher – teacher interaction and which can motivate effective team teaching sessions.

- g) Organizing professional communities for promoting professionalism is the need of the hour as far as Indian education is concerned. This is truer in the case of technical education. Such communities which are purpose-driven and collaborative in nature, and whose mission includes encouraging innovative experiments in CLIL and supporting each other in conducting collaborative teaching are essential for maintaining the optimal degree of professionalism in teaching.

Conclusion

Since cognitive development and linguistic development take place in an individual corresponding to the physical development, one way of nurturing language development will be to correlate it with his or her understanding of the world by making use of cognitive skills especially of the higher order ones. CLIL provides the learner with the opportunities of employing higher order cognitive skills such as inferring, verifying, differentiating, comparing, evaluating, and judging and so on. In such a language-demanding real life situation, the development of language – here, English being the medium of instruction – takes place in a rather less conscious, if not sub-conscious way. In real life too reality and language do co-exist; therefore CLIL, in the hands of a resourceful teacher, is expected to produce better and greater learner output.

An earlier version of this paper was presented by Ms. Dhanya Bhaskaran at the 9th International Congress on English Grammar (ICEG 3-5 January, 2013) at VIT University, Vellore, India.

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Appendix 1

Questionnaire:

- 1) How much support did you receive from your language classes to understand and assimilate your subject knowledge?

High support- (I learned content and also improved my language ability)	Moderate support- (I learned some language and basics of some content)	Not sure	Not much (I did not learn content through my language sessions. I learned only some language	No help at all (I learned neither content nor language through my language classes)
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Out of 100 students, 10- high support, 15-moderate support, 23-not sure, 46-not much support, 6- no help at all

- 2) How did the English classes help you to improve your presentation skills? (either spoken- as a PPT presentation/ seminar or written as a report)

It helped a lot- and I scored high in my presentations and seminars in the subject classes	Moderate help- I tried to incorporate some learning from my language class in the subject class and my scores were improved a bit due to this	Not sure	Did not help much. I would have presented it the same way, even without the help of the language classes	Never used any input from my language class in the subject classes.
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Out of 100 students, 20- highly helpful, 27-moderately helped, 37-not sure, 16- did not help much

- 3) Which method was followed in the language class?

Translation (from Tamil to English or vice versa)	Teaching grammar and sentence structure	Teaching communication with special emphasis on speaking and writing.	Teaching subject related topics by highlighting language elements
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Out of 100 students, 15- translation, 18- teaching grammar and sentence structure, 49- teaching communication, 18-teaching subject through language

4) How many team teaching sessions (language teacher and subject teacher together) were there in your UG L2 classes?

None	Less than five	Less than ten	More than ten	Almost all the sessions
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Out of 100, 96-none, 6- less than 5

5) How effective were your English language teacher while imparting the content presented in the English textbook?

Highly effective- she was through with the content and language	Effective- she could transact the content without errors, but not very confident in it.	Not sure	Not effective- she struggled with the content and gave misleading information	Very ineffective- she ignored the content completely and just taught the language related topics and neglected the content.
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Out of 100 students, 12- highly effective, 12- moderately effective, 62- not sure, 11- not effective, 3- completely ineffective