

THE POTENTIAL USE OF COLLABORATIVE ESP TESTING IMPLEMENTATION FRAMEWORK (CETIF) IN ADDRESSING UNDERLYING ISSUES IN ESP CURRICULUM AND TESTING FACED BY ENGLISH LECTURERS TEACHING ENGINEERING STUDENTS

Norkhairi Ahmad¹, Ahmad Mazli Muhammad²,
Asiah Jamil³

¹Universiti Kuala Lumpur Malaysia France Institute, Bandar Baru Bangi, Selangor
norkhairi@unikl.edu.my

²Universiti Teknologi MARA, Shah Alam Selangor
a.mazli@uitm.edu.my

³Universiti Teknologi MARA, Shah Alam Selangor
asiah778@salam.uitm.edu.my

Abstract: Albeit the presence of educational quality initiatives like Outcome Based Education (OBE) and Common European Framework of Reference (CEFR) to enhance the implementation and outcome of university language courses, deep seated issues continue to leave a trail of shortcomings in the outcomes and abilities of university graduates in terms of language and communication. Detailed qualitative responses via purposive sampling elicited from experienced English lecturers teaching ESP courses to engineering students at universities in Malaysia, revealed underlying issues that stemmed from the systemic aspects of the engineering curriculum planning and execution. Issues like inaccurate course positioning in programme structure and marginalized roles of English lecturers that affect ESP courses implementation were identified via contextual analysis. Guided by the list of issues and theoretical underpinnings, a framework was proposed for mitigation efforts. The collaborative ESP testing implementation framework (CETIF) which is tied-up to language testing principles of Validity, Reliability, Impact, Practicality, and Quality management (VRIPQ) and ESP principles like specificity, authenticity and learners' needs, embodies mitigation efforts and synergy between practitioners like English lecturers, engineering lecturers, and industry personnel. Discussion on the potential use of CETIF is put forth and the potential benefits to be yielded include enhancement of English lecturers' professional roles, forming of positive beliefs and views and cultivation of good ESP testing practices.

Keywords: ESP, language testing, engineering

1. Introduction

This study highlights the practices of developing language tests for English for Specific Purpose (ESP) courses offered in engineering programmes at universities in Malaysia and the issues that revolve around this process undertaken by English language lecturers teaching engineering students.

Many literature in education highlights language testing and evaluation as an oft neglected area, laden with issues and uncertainties. If all issues are addressed, it could play a significant role in the betterment of future undergraduates' proficiency level in the English language. Nowadays, assessing and evaluating English language abilities of undergraduates in Malaysia has seemingly become more challenging due to the endless public outcry and employers' continuous lament of the deteriorating standards of English among graduates entering the job market. Basically, there are multitudes of challenges that lecturers have to mitigate in order to develop ESP tests which would bring about the best outcomes from students as demanded by many stakeholders.

2. Statement of the Problem

As testing is one of the cornerstones of tertiary education; addressing internal aspects that influence test development such as educator's testing views will be inevitable as they lie at the heart of the symbiotic equation of teaching, learning and testing. Hill and McNamara (2012) highlight the presence of gaps in many studies on assessment practices particularly on the need to focus on underlying reasons for such practices and on learner and learning aspects. Many members of the education fraternity like teachers and lecturers were reported to undertake tasks in assessment without the opportunity to be thoroughly taught and properly inducted into important assessments fundamentals (Stiggins 2007). Downing and Haladyna (2006) point out that although test development is a growing industry reaching out to many levels of education in many professions, there are limited comprehensive, research-oriented handbook which test developers and consumers can turn to for full guidance. The absence of principles and systematic practices in language testing has even resulted in some stakeholders to view assessment as a guess-work of trying to know what educators actually intend to do (McLaughlin & Simpson, 2004). For instance, Fitzgerald, Dawson and Hackling (2012) identified teachers' views and the contextual aspects of each classroom environment, as factors which influence the way they undertake education tasks and their reasons for it. In addition, Fletcher et al. (2012) pointed out that in the tertiary context, not much is understood of lecturers' and learners' conception of the various aspects of assessment, which implicate tertiary institutions policies and practices. This is also echoed by Green and Hawkey (2011) who point out that despite the importance of language testing in education, there is still little information known on the test material development processes that item-writers go through. Norkhairi (2010) in his overview of problems highlighted in literature on language testing, identifies the following issues;

1. Language testing is considered as a side-lined aspect of language teaching
2. Inadequate theoretical underpinnings on language test development practices
3. Insufficient training for language testing practitioners
4. Inability of to adapt to changing views and approaches to language testing.

Basically, all these point to the fact that language testing scenario in many countries including Malaysia appears to be in a state of conundrum as assessing English language abilities of undergraduates become more challenging. As such, there is a need to investigate ESP test development among lecturers at tertiary institutions to see the kinds of tests being developed, the processes involved and the issues faced.

3. Research Questions

This study investigates the underlying issues and challenges in lecturers' practices in developing ESP tests for engineering students. The research questions are as follows;

1. What are the underlying issues and challenges faced by lecturers in developing ESP tests?
2. How can a collaborative ESP testing framework be used to mitigate the issues and challenges?

4. Methodology

This qualitative study started with the first phase of investigation on 10 English lecturers from 8 universities predominantly offering engineering pro-grammes via semi-structured interviews, self-reflection and document analysis. The interview questions focused on the steps and procedures which they undertake in developing ESP tests as well as probe aspects such as the guidelines that they follow and the challenges that they encounter in completing the ESP test papers. A detailed case study approach was then undertaken in the second phase; focusing on 6 lecturers at 2 universities as case sites. Findings were also drawn from triangulated information from analysis of documents such as course syllabus, OBE and test guidelines and actual ESP test papers. All interviews were recorded; transcribed verbatimly, coded and analyzed for emerging themes. The analysis process incorporates contextual analysis via Cultural Historical Activity Theory (CHAT), Conditional , Consequence Matrix (CCM) and Mackey’s Interaction Model (MIM).

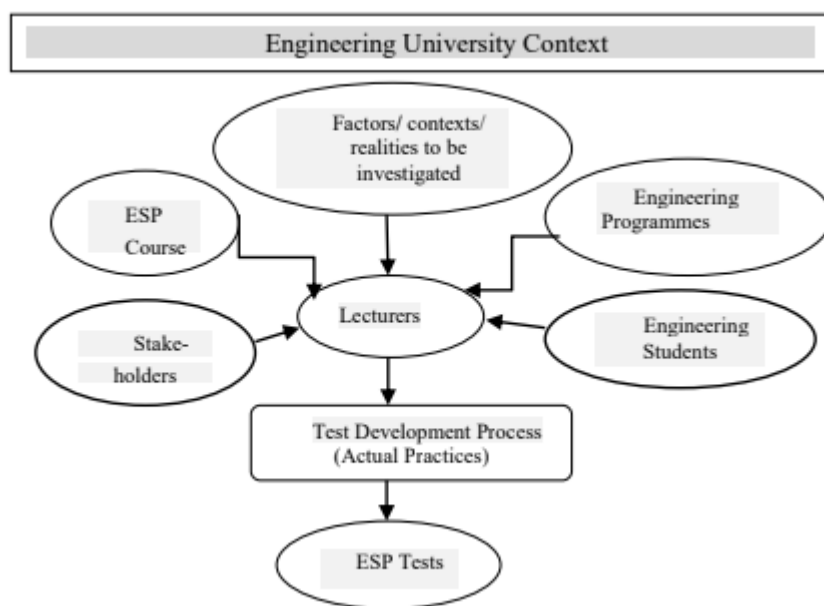


Fig 1: ESP Test Development in Engineering University Context
Source : The researcher

5. Findings

Firstly, the interview transcripts disclose lecturers’ varying practices when developing English language tests for their respective institutions. On the whole, the lecturers’ range of testing practices appears to be determined by institutional circumstances such as;

1. The nature of the ESP courses and their respective syllabus
2. Language test development requirements and procedures set by the institutions
3. The role assigned, opportunity given or made available in engaging in test development matters

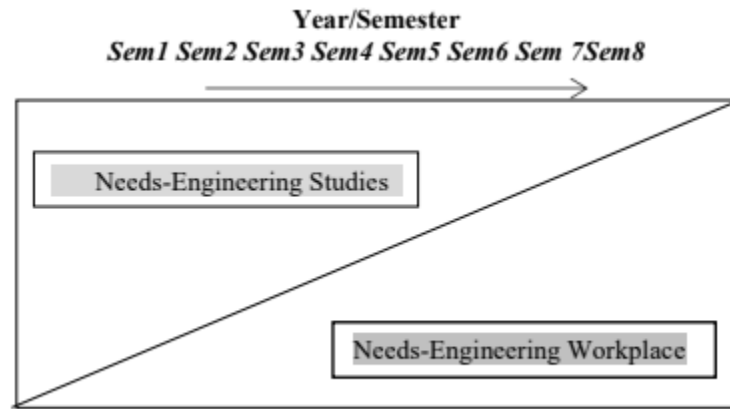


Fig 2: Content emphasis in ESP Courses over semester of study
Source: The authors

Generally, the lecturers consider many kinds of information and guidelines for test construction purposes which are constituted in the following sources;

- i. lessons and format taught in class
- ii. syllabus, topics in syllabus and course modules
- iii. past semester's question papers v. Bloom's Taxonomy
- iv. Test specifications and guidelines provided by superiors
- v. performance descriptors and assessment criteria
- vi. marking scheme and assessment matrix provided by superior ix. internet

Findings drawn from the interview transcript data basically indicated that the planning of the language tests was based on the objectives of the course, the syllabus, guidelines, specifications, general examination or test development guidelines delegated by the lecturers' superiors or issued by their respective university. On the whole, all lecturers made effort to follow and to closely adhere to them. However, some of the lecturers felt that the presence of specific guidelines and test specifications would help the test construction procedures especially for new staff. More transparency and clearer instructions on delegation of language test development tasks were cited as factors that would improve their testing practices.

Basically, the training received and experience gained by the lecturers to a certain extent impacted their awareness on fundamental aspects of language testing albeit at a varying level of depth of understanding. In addition, the lecturers are impacted in terms of exposure to different modes, format and types of test items by their experience in language test development. It can be seen that level of experience, exposure, type of education and training received on the aspects that relate to language testing play an important part in determining the lecturers' language test development practices. The interview transcripts of the respective lecturers reveal differences in terms of the lecturers' ability to articulate their level of understanding; awareness and their ability to demonstrate good test development practices. The more they are able to deliberate on factors influencing the construction of language tests, the better decision and choices can be made by them in ensuring criteria of a good language tests are met. Hedge (2001) identifies a number of significant factors which influence the approach to language test construction and the nature of the tests. Among the oft highlighted primary factors are the test developers' view on language and the need to make connection between syllabus and instructional materials. Ultimately, according to Coombe, Alhamly and Troudi (2009) lecturers with solid foundation in language testing can efficiently integrate testing matters with pedagogic instructions in the language class.

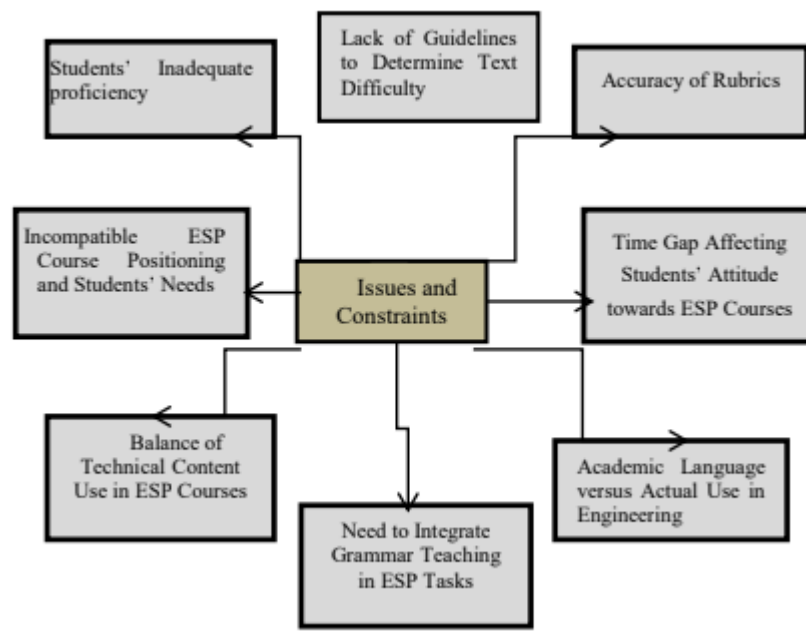


Fig 3: Issues and Constraints in Developing ESP tests

Source: The authors

5.1 ESP Test Construction Challenges Faced by Lecturers

The lecturers firstly highlighted institutional constraints whereby they have to construct test based on syllabus, general guidelines and test format or samples which were previously approved. These guidelines, syllabus and documents are not entirely ESP in nature; rather they are quite generic for general academic English. Secondly, they highlighted their attempts to adapt some technical materials from sources such as the internet to be adapted and incorporated into their tests so that it will be more technical-like albeit some sense of uncertainty in terms of their suitability. Despite many of the test papers were more EAP in nature, they do incorporate some ESP or technical reading passages. Issues like distinguishing specific contexts, topics, language skills and sub-skills, types of test tasks were also highlighted as among the challenging aspects in developing tests.

Basically, as pointed out by Douglas, (2001a) and Wu and Stansfield (2001), the primary issues and challenges faced by the lecturers when developing ESP tests are the of lack of test design guidelines, insufficient technical background knowledge, difficulty in determining topic choice and ensuring authenticity of test tasks. The list of challenges and problems are summarized as follows;

1. Different threshold or gaps in students' previous language grades and actual performance at university due to different emphasis in the curriculum
2. Lack of test construction guidelines whereby ESP approaches are not clearly spelled out in test construction guide or test specifications.
3. Uncertainty and difficulty to incorporate authentic workplace language items and problems of pitching level of difficulty for test.
4. Difficulty to establish skills and sub-skills for ESP language test.
5. Difficulty to establish students' depth and range of background knowledge, especially for topics based ESP test such as specificity of input passage.
6. Difficulty in rating ESP language responses from paper test or presentation in terms of the specific technical response in terms of elaboration, exemplifications and so on.
7. Lack of opportunity to get input from authentic workplace situation as industry personnel are not invited to give feedback or vet test papers before tests are designed.

5.2 The Need for Mitigating Framework

From the data qualitatively analysed in this study, emerged themes high-lighting a plethora of challenges that the lecturers have to mitigate in order to develop ESP tests for engineering students. This also reflects the complex realities of lecturers' actual practices in developing ESP tests for engineering. The obstacles stemmed from unresolved issues at the systemic or macro level which are far from ideal conditions. To address and mitigate the underlying issues and challenges the voices of lecturers as real practitioners dealing with the multiple realities must be accounted for. The aggregated findings from all the research questions and the extended contextual analysis are combined based on their interrelatedness, roles, functions, relational agency and their impacts towards each of the aspect within the whole context of ESP testing practices and synthesised into a framework called 'collaborative ESP tests implementation framework' or CETIF. The main anchor element in CETIF is the language testing principles of VRIPQ (Cambridge ESOL, 2011a) that form the basis of test quality to be aspired by all test developers and best testing practices including test development must embody these principles. CETIF in the figure below is also a summarised representation of the combination of the essential issues and main factors highlighted by the English lecturers on the tasks of developing ESP tests.

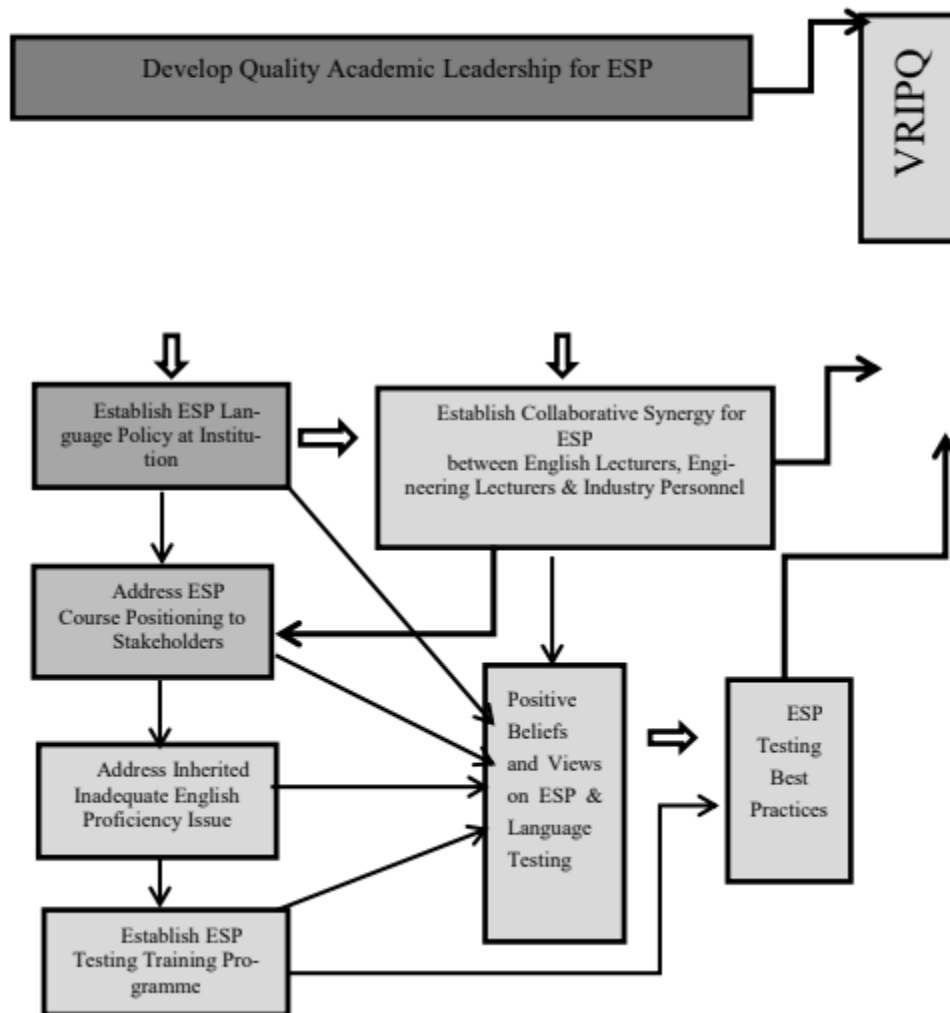


Fig. 4 Collaborative ESP Testing Implementation Framework (CETIF)

To comprehend and plan mitigation efforts, a quality leadership must first be established at the institutional level. This is made up of key persons who understood the big picture of ESP education and its significance and are well versed with its intricacies like testing. The quality leaders will initiate measures such as establish a language policy at faculty or department level which emphasizes good planning and strategies in utilising available resources to address ESP and testing underlying issues. The language policy will address salient measures towards upholding of ESP principles among all English lecturers and to streamline their understanding, beliefs and views in comprehending the building block of ESP and the recommended strategies to embrace and implement them via effective training and workshops. The language policy will also help the English department to initiate measures such as taking cognizance of available resources such as engineering corpus and wordlist, authentic media sources of oral discourse in engineering. Training programmes will also be devised to enhance awareness and interest to continuously explore other ESP discourse in various fields. All these efforts will help bring into the ESP lessons, quality input and authentic sources to be incorporated as elements in the receptive and productive skills, grammatical and language structures, and communication skills. Useful ESP understanding and good authentic resources will help meet the needs of the learners. The policy will also guide lecturers to accurately enrich students' Zone of Proximal Development (ZPD) as propagated by Vygotsky (1978) by incorporating the quality ESP resources into the cyber-realm of continuous online learning via utilising ICT technology to plan frequent authentic communication sessions with actual personnel from the field like engineers and managers. These integrated efforts towards ESP require dynamic leadership whose significant roles will be to continuously churn out innovative ideas, to inspire the team via demonstrating their own teaching outputs rather than lip service and to steer the team towards avant-garde growth in their capacity to reach new heights.

This policy under CETIF also propagates the formation of synergistic collaborative platform with engineering lecturers, employers, industry fraternities and university alumni to facilitate continuous exchange of up-to-date input and authentic resources for the ESP courses. This formalized collaboration will make the owners of the specific programmes like engineering lecturers to be equally accountable in the formation process of their undergraduates. Similarly, the industry personnel and employers will be made more responsible in providing constructive and explicit input on language and communication matters regularly throughout the year. This collaborative synergy will enhance accountability of all the players and cease the blame games. All these plans and measures will produce positive outcomes which will contribute towards quality ESP practices and not only meet the VRIPQ principles but also the bigger mission and vision of tertiary language education.

The solution to perceived ailments and issues of ESP education in Malaysia does not lie abroad in the bastion of the native context where the language originates and flourishes, rather it exists within local contexts that require academia's strong realization, enhanced awareness and political will to work on available resources and to explore strategic avenues for meaningful solutions. This selfinitiated so-called local solution will be more meaningful and sustainable as it is based on the day to day longstanding actual realities and contexts being continuously grappled by English lecturers and will appeal better to them as opposed to top-down prescribed new policy.

6. Discussion

A good language test, be it a formative or a summative test serves as a significant platform where educators can obtain valuable feedback on students' performance in learning a language. This will only thrive in a stimulating environment not bogged down by unresolved issues which could be established via the implementation of a framework like CETIF. Valuable information can be drawn from test-takers' performance in a language test and will be used for various decision making and planning purposes (Kubiszyn and Borich, 2000) if the ESP testing processes thrives well. In addition, despite studies highlighting obstacles in embracing ESP, Douglas (2000) asserts that in extremely content-specific language domain, a language specific test functions as a more reliable indicator of language abilities than a general purpose test albeit being more suitable for smaller scale technical or professional programme.

ESP testing is a measure that takes into consideration learners' background content knowledge and language competencies to undertake language tasks within specific contexts. In relation to this, it is pertinent for ESP educators as the individuals responsible for developing tests to have sound testing principles. This allows them to apply good strategies in preparing good tests to gauge learners' abilities and their rate of success in language learning. Likewise, this gauges ESP educators' success in teaching the students. Marsden (1983) believes that good ESP testing help create learners' positive attitude towards English by assisting them gradually improve the language as well as enable educators to assess the effectiveness of their teaching and testing process. In addition, according to McNamara (2008, p.25) test construction begins with decisions about test content namely the language items to be incorporated into the test and this process will be dependent on the view of test construct, the view on language use in test performance and the relationship of test performance to real world context which requires the practice of establishing test content, obtaining careful sampling from domain of test, setting of tasks and determining the kinds of behavior in the criterion setting for the test. This ensures that the test fits into the requirements which will be initially set by policy makers and stakeholders.

The lecturers were not solely looking at their students' grades but also the usefulness of the skills and abilities attained from the ESP courses in serving the students in their studies of engineering and in their career journey in engineering. In relation to this, the lack of interaction and collaboration with engineering stake-holders like engineering lecturers and industry employers for current and continuous input for ESP curriculum and testing matters become one of the main concerns among the lecturers. Albeit being aware of employers' expectations for graduates to have good command of language and communication abilities for a variety of engineering workplace tasks, the lecturers expressed their concern on the lack of specific input from the industry on the actual samples of language weaknesses and communication problem, oft commented via the mass media. Brown (2008) sees the lack of authentic workplace input in ESP curriculum is due to academia's insufficient efforts to inform the industry on the importance of their input for developing curriculum and designing tests. Wall (2000) emphasizes involvement of stakeholders, employers and educators in test designing processes to ensure suitability and clarity of test specifications, test items and scoring criteria. The lecturers believe that explicit input and specific examples from employers and industry personnel could improve the ESP curriculum gaps and enhancing under-graduates' communicative competence.

To avoid universities which specialize in fields such as engineering from being labeled as the "blind leading the blind", their testing practices must be up graded by applying ESP principles and undertaking the following recommendations which are embodied under CETIF;

1. Engage industries which work closely with university to have ESP audits and Needs Analysis via facilitation by English lecturers.
2. Use student interns to collect and record authentic ESP data at the industries they are attached to and appoint language lecturers as co-supervisors.
3. Invite industry personnel and engineering lecturers to sit on panel for developing lesson materials, validating tests and assessing students' presentations.
4. Develop database of engineering stock words, terminologies, tasks and have corpus or discourse analysis of the workplace samples.
5. Incorporate data from ESP database into syllabus, lessons and ESP tests.
6. Develop enculturation activities to induce ESP lecturers into workplace realities by collaborating with engineering lecturers and industry personnel.
7. Adopt industry based portfolio and project-based assessments for ESP courses.

7. Conclusion

Far from ideal conditions, English lecturers as ESP practitioners who teach engineering students are faced with challenges originating from unresolved issues at the macro level. The lecturers' ESP testing practices demonstrated attempts to address the challenges engulfing the task of ESP test development. In the process, the lecturers are guided by their own longstanding views on language testing that present varying degree of conformity, ingenuity and divergence as compared to best practices in ESP and language testing. The lecturers' ESP readiness, mastery of test development skills and long-standing beliefs on assessment and ESP are aspects which influence their practices. CETIF which is based on contextual realities and theoretical underpinnings presents a platform which offer collaborative solution and synergy for better implementation of ESP courses by resolving longstanding pedagogical and testing issues via quality leadership and integrated measures.

8. Acknowledgements

The authors gratefully acknowledge the meaningful participation of the lecturers in the study and the useful comments of the reviewers.

References

- Brown, J. D. (2008). Opening keynote address, 30th Annual Language Testing and Research Colloquium, Hangzhou, China.
- Bryman, A. & Bell, E. (2007) *The Nature of Qualitative Research in Business Research Methods*. New York. Oxford University Press
- Douglas, D. (2000). *Assessing languages for specific purposes*. Cambridge: Cambridge University Press.
- Douglas, D. (2001a). Three problems in testing language for specific purposes: authenticity, specificity and inseparability. In C. Elder, et al (Eds.), *Experimenting with uncertainty: essays in honour of Alan Davies* (Studies in Language Testing Series, Vol.11, 45—51). Cambridge: University of Cambridge Local Examinations Syndicate.
- Downing, S.M & Haladyna T.M (2006) *Handbook of Test Development*, Lawrence Erlbaum.
- Fitzgerald, A., Dawson, V., and Hackling, Mark (2012) *Examining the Beliefs and Practices of Four Effective Australian Primary Science Teachers in Research in Science Education*, Online First, 6 June 2012
- Fletcher, R.B., Meyer, L.H., Anderson, H. et al (2012) *Faculty and Students Conceptions of Assessment in Higher Education* (2012) 64: 119.
- Gray, D.E. (2014) *Doing Research in the Real World* 3rd Edition, SAGE Publications Ltd
- Green, A. B. and Hawkey, R.A. (2011) Re-fitting for a Different Purpose: A Case Study of Item Writer Practices in Adapting Source Texts for a Test of Academic Reading in *Language Testing* January 2012 vol. 29 no. 1 109-129
- Hill, K and McNamara, T (2012) *Developing a Comprehensive, Empirically Based Research Framework for Classroom-Based Assessment in Language Testing* July 2012 vol. 29 no. 3 395-420
- McLaughlin, P and Simpson, N (2004). Peer assessment in first year university: How the students feel, *Studies in Educational Evaluation* 30/2, 135–49.
- Norkhairi Ahmad (2010) *A study of English language test development practices among lecturers of tertiary institutions*. Unpublished Masters Dissertation UKM.

- Punch, Keith F. (2014) Introduction to Social Research: Quantitative & Qualitative Approaches Third Edition. SAGE Publications Ltd
- Stiggins, R (2007) Assessment through the Students' Eyes in Educational Leadership. May 2007
Volume 64 Number 8
- Troudi, S, Coombe, C and Al-Hamly, M (2009). EFL teachers' views of English language assessment in higher education in the United Arab Emirates and Kuwait, TESOL Quarterly 43/3, 546–55.
- Wall, D. (2000). The impact of high-stakes testing on teaching and learning can this be predicted or controlled? System, 28, 499-509..
- Wu, W. M. & Stansfield, C. W. (2001). Towards authenticity of task in test development. Language Testing, 18(2), 187-206.