

Research Note: The PTE Academic and 'Outer Circle' Students: their Proficiency in, and Ownership of English and their Academic Performance at UK Universities. |

Roy G. Wilson
University of Warwick, United Kingdom
December 2016

Aims

This study explored the test performance and academic performance of students (test takers) from outer circle countries. The outer circle (Kachru, 1985) denotes countries that were (but not exclusively) part of the British Empire (present-day Commonwealth). Outer circle countries have a historical inheritance of English from the colonial period, which is reflected in the current status of English in many of these countries as a national or official language, and a first language or lingua franca for many citizens in those countries including for those students who study abroad. This study investigated how students from this under-researched category perform on academic English tests and how they cope at university in the medium of English.

The research was conducted in two strands, the first strand used mixed methods (semi-structured interviews, surveys and descriptive and inferential statistics - t-tests and ANOVA) to look at the proficiency and ownership of English of outer circle students, with regard to how these students demonstrate their English proficiency for entry to UK universities and how they perform on academic English tests in comparison to students from other outer circle countries and expanding circle countries (those countries with a historical relationship to English as more of a foreign language).

The first strand of the study sought to investigate if there were any differences in test scores between test takers of the outer and expanding circles and between countries within those groupings as well as exploring attitudes towards the test from outer circle stakeholders in surveys and thematic analysis of semi-structured interview data.

The second strand took a case study approach to tracking the academic and linguistic experiences of four students from 'anglophone' West Africa in their first year in academia in the UK. It explored whether they had encountered any issues in their studies, and whether these issues could be attributed to linguistic or other factors. This second strand of the study aimed to discover what could be inferred from the PTE Academic test scores for particular individuals (cases) from the outer circle.

Both strands looked at the validity of the PTE Academic, the first, focusing on whether it is legitimate for outer circle students to take academic English tests, given the fact that many have an educational and social background in the medium of English, and the second looking at what can be inferred from the test scores of individual test takers from the outer circle as regards how they cope on their academic courses in the UK.

Research Questions

Strand One: Academic English Language Proficiency & Ownership of English

- RQ1 (Admissions):

What do the admissions policies of universities regarding nationality and CSELTs (Country-Specific English Language Tests) qualifications (as proof of English proficiency) suggest about the ownership of English and the English language proficiency of outer circle students?

- RQ2 (Proficiency difference):

i) Is there a difference in the proficiency of outer circle test takers compared to expanding circle test takers as reported by the PTE Academic and other academic test scores (IELTS and TOEFL-iBT)?

ii) Is there a difference in proficiency, as reported by PTE Academic test scores, according to the L1 of the test taker (English vs. Other L1)?

- RQ3 (Perceptions of proficiency-ownership):

What are stakeholder perceptions of outer circle proficiency and ownership of English for university entrance?

Strand Two: Academic Performance (Case Study)

- RQ4 (Predictive validity):

How do the PTE Academic score profiles of individual students compare to their actual language behaviour and academic performance in their first year?

- RQ5 (Variables):

What are the multiple variables that affect the academic performance of these particular outer circle test takers on their chosen courses?

Student Background, University Admissions and Language Policies

Test takers from the outer circle fall between the 'inner' and 'expanding' circles yet are not exempted from doing Secure English Language Tests (SELTs) such as PTE Academic and IELTS in order to study in the UK. This is despite the fact that many outer circle test takers may have ownership of English (Norton, 1997) and a proficiency in their variety of English that may be more of an ESL or 'native user' (Davies, 2013) nature than an EFL one. A study done by Zheng and Wei (2014), who looked at Indian (outer circle) and Chinese (expanding circle) test takers of PTE Academic identified an ESL/EFL difference and the Indian and Chinese test takers displayed differing score profiles meaning perhaps a need for different approaches to academic and linguistic support at university.

The four case study participants in this study had all had their education in the medium of English and despite stating that their L1 was a Nigerian or Ghanaian

language other than English, in actual fact, all used English a lot more than their 'mother tongues' in their day to day lives in order to communicate and to function in post-colonial multilingual states (such as Nigeria and Ghana) where English is often a lingua franca. A gap in the literature for predictive validity studies is that there is a tendency to classify all international students together as needing to take tests such as PTE Academic and IELTS because they do not come from 'majority English-speaking countries' (UKVI, 2014) instead of conceptualising those from the outer circle as often having very different experiences in, and relationships to, English. I propose that the background of the student is a significant variable to take into account when looking at the predictive validity of a test because having prior experience and a prior relationship to English may be a significant variable in test performance and how test scores can be interpreted.

Additionally, given that previous predictive validity studies have largely been concerned solely with quantitative studies - many of them failing to find a significant strong correlation between test scores and final academic grades - my study seeks to provide alternative qualitative and quantitative evidence on the variables which can affect student performance and to try and relate these to the initial score report as well as seeking to discover whether the PTE Academic is able to anticipate any linguistic issues that the student might have on their course.

Data Overview

The data was collected in two strands and consisted of:

Strand One: Academic English Language Proficiency & Ownership of English

1. A survey of UK University admissions policies regarding acceptance of home country qualifications (Country-specific English Language Tests) in place of international academic English tests (IAETs) (132 institutions).
2. Descriptive and inferential statistical analyses of the PTE Academic score profiles of individuals from the outer and expanding circles (n=8067).
3. Analysis of publicly available mean test score and nationality data sets from IELTS and TOEFL-iBT (n=not published).
4. A survey of English-speaking outer circle students on their perceptions of English language proficiency in the outer circle (outer circle n=17) and thematic analysis of semi-structured interviews of Pearson country representatives (n=3).

Strand Two: Academic Performance (Case Study)

1. A recruitment Survey (n=46).
2. Case Study (thematic analysis of semi-structured interviews and analysis of written assignments) of four cases.

Findings

- **RQ1 (Admissions):**

What do the admissions policies of universities regarding nationality and CSELTs (Country-Specific English Language Tests) qualifications (as proof of English proficiency) suggest about the ownership of English and the English language proficiency of outer circle students?

The university admissions survey revealed that 57.57% (n=76) of the 132 universities do accept CSELTs as alternatives to SELTs or IAETs compared to 40.91% (n=54) stating that they did not accept CSELTs as proof of English proficiency. 1.52% (n=2) did not answer or have clear information.

Because of the number of outer circle countries, not all universities had comprehensive lists of every outer circle country qualification, but it was clear that those students with high school English certificates from many outer circle countries (largely the Commonwealth) as well as some expanding circle countries could be considered for the application process and admission to a UK university without a SELT.

- **RQ2 (Proficiency difference):**

i) Is there a difference in the proficiency of outer circle test takers compared to expanding circle test takers as reported by the PTE Academic and other academic test scores (IELTS and TOEFL-iBT)?

The study had access to test score data for 4334 test takers from 27 'outer circle' countries and 3733 test takers from 36 'expanding circle' countries.

A null hypothesis was assumed: There is no statistically significant difference in the proficiency of test takers from the outer and expanding circles as expressed by mean PTE Academic scores. Descriptive and inferential statistics (t-tests and ANOVA) were performed on the data sets.

The descriptive statistics allowed me to see what the breakdown of each sample was in terms of nationality, gender, L1, age and the mean scores and standard deviation of their overall PTE Academic score and the four communicative skill scores for listening, reading, speaking and writing. The descriptive statistics broken down by country indicated that there may be further differences in mean scores, specifically for outer circle Asia and Africa and the expanding circle. Therefore, it was considered relevant to compare the three group means for the expanding circle, outer circle Africa and outer circle Asia.

The inferential statistics comprised t-tests and ANOVA (analysis of variance) to determine if there were any statistically significant differences in the variance of mean PTE Academic test scores between groups. The t-test compared the variance in means of two groups while the ANOVA performed the same function but applied to three or more groups.

The descriptive statistical results were highly nuanced. Mean scores for expanding circle countries revealed that the expanding circle sample contains roughly equal numbers of countries that are in the lower (below B1+), medium (B1+) and higher (B2+) proficiency bands in terms of the CEFR. In other words, some countries display mean scores that are deemed much lower than university-level proficiency (below B1+), some are nearly at or around the threshold (B1+), while others are at the threshold (B2).

Regarding the outer circle data, apart from Nigeria and Cameroon (at B1+), all the other outer circle African countries were at B2 level overall and for most of the skill scores, although two of the countries were small in sample size - Sierra Leone (n=14) and Zambia (n=21). South Africa (n=393) is the most proficient African country according to an overall mean score at 76.12 GSE (C1).

Within outer circle Asia, Singapore (n=80) with 77.49 GSE (C1) followed by Malaysia (n=500) with 59.91 GSE (B2) have the highest mean scores overall whilst the Philippines (n=276) (58.82 GSE) and India (n=500) (56.54 GSE) are at a B1+ level overall, very close to the UKVI threshold for university study in the UK. Hong Kong (n=195) displays a low level of English at 50.79 GSE (B1 overall) but at B1+ in three of the communicative skill categories, followed by the south Asian countries of Pakistan (n=500), Sri Lanka (n=197) and Bangladesh (n=500) performing at B1 in every score category except speaking in Pakistan (B1+).

A comparison between Outer and Expanding circle group test performance indicated statistically significant differences between the two groups with small effect sizes in all score categories. In other words, the outer circle does display a statistically higher proficiency in English than the expanding circle group with a small effect size and the outer circle is closer to the university proficiency threshold set by the UKVI (B2) than the expanding circle group.

The selected tables below (1-6) illustrate the descriptive and inferential statistics for four groups – the outer and expanding circles, the outer circle African countries and outer circle Asian countries.

Table 1: PTEA Scores (GSE) and CEFR Levels Colour Key

Expanding Circle (n=3733)						
CEFR	C1+	B2	B1+	B1	A2	A1
Score (GSE)	76+	59-75	51-58	43-58	30-42	10-29

Table 2: Mean PTEA Scores for the Expanding Circle

Expanding Circle (n=3733)					
Category	Overall	Listening	Reading	Speaking	Writing
Score (GSE)	52.61	51.81	56.05	49.45	55.09
Stan Dev.	17.305	17.961	17.562	20.674	15.987

Table 3: Mean PTEA Scores for the Outer Circle

Outer Circle (n=4334)					
Category	Overall	Listening	Reading	Speaking	Writing
Score (GSE)	57.34	58.23	57.72	56.24	60.14
Stan Dev.	16.317	16.975	16.926	19.701	15.991

Table 4: Mean PTEA Scores for OC Africa

Outer Circle Africa (n=1580)					
Category	Overall	Listening	Reading	Speaking	Writing
Score (GSE)	63.95	65.43	64.83	61.36	67.76
Stan Dev.	16.573	17.065	17.195	21.062	15.381

Table 5: Mean PTEA Scores for OC Asia

Outer Circle Asia (n=2748)					
Category	Overall	Listening	Reading	Speaking	Writing
Score (GSE)	53.55	54.10	53.66	53.32	55.78
Stan Dev.	14.910	15.491	15.364	18.244	14.654

Table 6: ANOVA for Expanding Circle (EC); outer circle Africa; outer circle Asia

ANOVA						
	Overall	Listening	Reading	Speaking	Writing	
Levene's test	.000*	.000*	.000*	.000*	.000*	.000*
Sig (p)	.000	.000	.000	.000	.000	.000
Post Hoc (Tukey)						
	Overall	Listening	Reading	Speaking	Writing	
OC Africa+	EC	EC	EC	EC	EC	
	11.341 (.000)	13.617 (.000)	8.777 (.000)	11.905 (.000)	12.664 (.000)	
OC Asia+	OC Asia	OC Asia	OC Asia	OC Asia	OC Asia	
	10.394 (.000)	11.333 (.000)	11.165 (.000)	11.034 (.000)	11.980 (.000)	
OC Africa+	n/a	EC	EC	EC	n/a	
		2.284 (.000)	-2.388 (.000)	3.871 (.000)		
OC Africa+	OC Africa	OC Africa	OC Africa	OC Africa	OC Africa	
	-10.394 (.000)	-11.333 (.000)	-11.165 (.000)	-11.034 (.000)	-11.980 (.000)	
Effect Size (eta squared)						
	Overall	Listening	Reading	Speaking	Writing	
Eta Sq.	0.066	0.083	0.054	0.046	0.092	

* Equal variances not assumed

+ mean difference (sig p=0.05)

For further inferential statistical tests, the outer circle was broken down into outer circle Asia and outer circle Africa as the descriptive statistics indicated different score profiles for the two continents. The general finding from the inferential statistical tests (table 6 above) is that there is a statistically significant difference in the overall means and all four sub-skill score means between outer circle Africa on the one hand, and the expanding circle and outer circle Asia on the other. Outer circle Africa displays higher mean scores in all score categories than the other two groups, which is statistically significant with medium effect sizes in most categories with the smallest effect size in speaking.

ii) Is there a difference in proficiency, as reported by PTE Academic test scores, according to the L1 of the test taker (L1 English vs. Other L1)?

Further t-tests and ANOVAs were conducted within regional and country groups in order to see whether having English as an L1 was a further factor in test performance within the groups and individual countries.

A large majority of African outer circle test takers (73.2%) stated English as their L1 compared to 22.8% of Asian outer circle test takers and 8% of Expanding circle test takers.

Regarding African test takers of the PTE Academic and the CEFR levels, other L1 test takers display the same level of proficiency as English L1 test-takers (at B2) in all score categories apart from speaking (B1+). This suggests that OC African test-takers perform quite well on the test regardless of whether they have English as an L1 (B2 level). However, for outer circle Asian test takers, the results indicated that there are noticeable differences between the mean scores of English L1s and non-English L1s in all five score categories. L1 English test takers display a high-level of proficiency (at B2) whilst those with other L1s are just into the B1+ level in all score categories.

Most of the t-tests and ANOVAs conducted on the larger data sets (English L1s in outer circle Africa, outer circle Asia, expanding circle vs other L1s) indicate that L1 English test takers display higher mean scores than other L1 test takers, with statistically significant differences. A large effect size is evident when comparing the outer circle and expanding circle in this way. In terms of smaller regions and country groups, the results indicate that outer circle African test takers, in particular, display a high proficiency reflected in their PTE Academic test scores and that this is not necessarily dependent on their L1 being English.¹

Regarding mean average test scores according to nationality on other IAELTs such as TOEFL-iBT, within their continents, outer circle African and Asian countries display a higher proficiency in English than their expanding circle counterparts. However, the TOEFL-iBT data for Europe and South America suggest that the test takers from these expanding circle regions display equal if not higher levels of proficiency in English than the outer circle African and Asian countries and this serves as a counter-point to the PTE Academic mean score findings. Publicly available data for IELTS was not comprehensive regarding countries covered and so was not included in this summary.

¹ See the full thesis at the British Library archive (Wilson, 2016) for full results and tables for all regions and countries.

- **RQ3 (Perceptions of proficiency-ownership):**

What are stakeholder perceptions of outer circle proficiency and ownership of English for university entrance?

The Pearson representative semi-structured interviews (n=3) resulted in themes (figure 1) that suggested that outer circle Africans could have more ownership of English than Malaysians and Indians (outer circle Asians) perhaps due to the particular nature and use of English in Nigeria but that all three countries are multilingual states that use English as a lingua franca to some extent. This connects with the findings in strand two because the four cases also indicated ownership, voicing some objections to their having to take the PTE Academic, and articulating of their de facto use of English in life in Nigeria. However, among the country representatives there was respect given to the PTE Academic for its comprehensive assessment of all four skills (reading, writing, speaking and listening) in comparison to the CSELTs which were considered good indicators of reading and writing skills only.

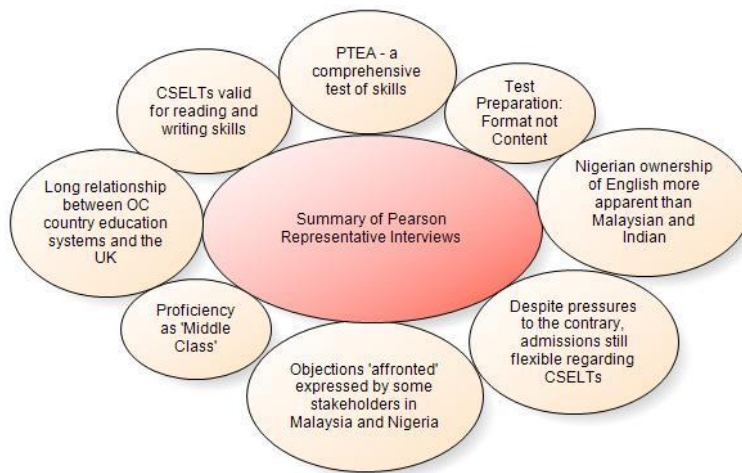


Figure 1: Thematic summary of all Pearson representative interviews

The outer circle survey (n=17) contained questions which were mainly concerned with the participants' experiences of SELTs and CSELTs in university admissions and the participants' previous education in English. The survey revealed (figure 2) that students do have some objections to having to take SELTs at the expense of the CSELTs as proof of English proficiency with others voicing concern about the quality of their country's CSELTs as explaining why they had to take tests such as PTE Academic. Social class emerged as a theme in both surveys in that English was likely to be spoken in more affluent families.

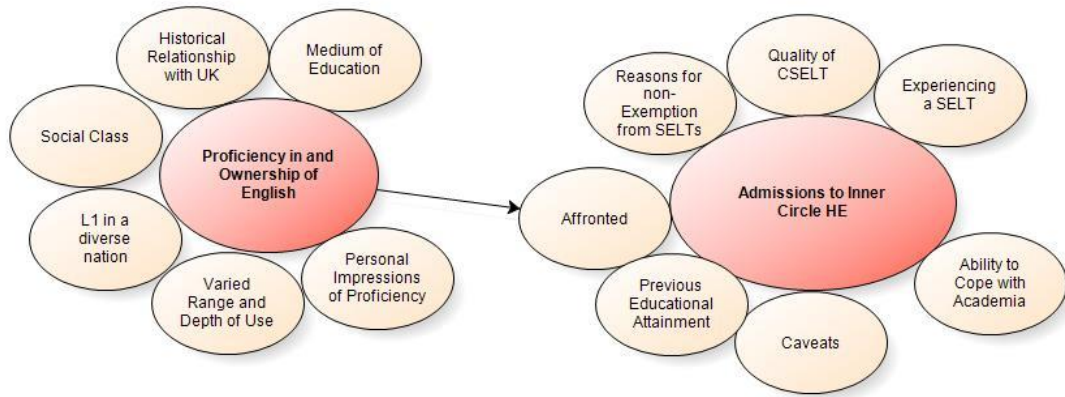


Figure 2: Thematic map of the outer circle student survey

RQ4 (Predictive validity):

How do the PTE Academic score profiles of individual students compare to their actual language behaviour and academic performance in their first year?

Figure 3 provides a summary of the themes found in the recruitment survey (n=47). It is important to note that many students in the recruitment survey to the case study indicated that familiarity with the format of the test was an issue in test performance in that it was vital to be fore-warned on the format of the test in order to be able to score highly on it. The medium of the test – on computer – was another important variable with regards performance on the test in terms of users needing to be familiar with, and comfortable with using computers for the entire test performance in order to do well on the test. This was reiterated in the following case study tutorials (semi-structured interviews).

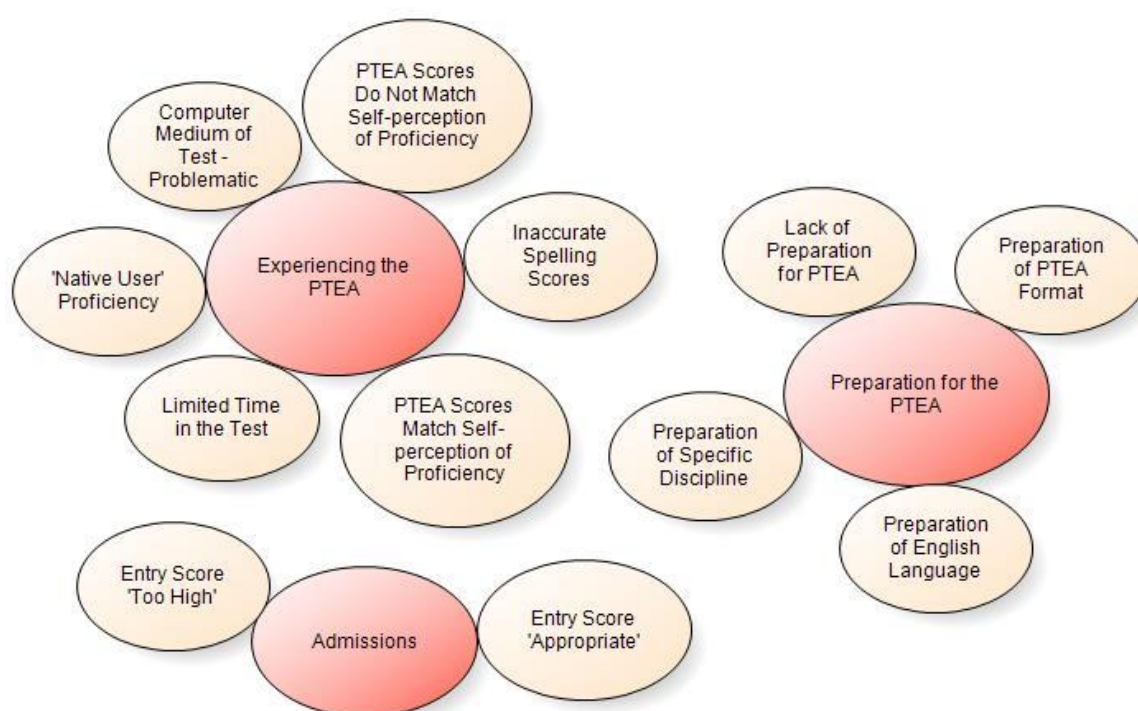


Figure 3: Summary of Recruitment Survey Themes

The final case study data comprised the four cases' data from the recruitment survey, thematic analysis of the three tutorials (semi-structured interviews), and analysis of samples of written work.

The cases' responses and interview data suggested themes (figures 4 and 5) that were individual, but which were also held in common across the cases. The PTE Academic score profiles were used to infer where the individuals might have had issues in their linguistic proficiency in academia. This was apparent for cases B, C and D for whom there was sufficient data. Those cases scoring in the mid-50s on the PTE Academic GSE (B1+) or at B2 or higher (GSE 59+) did not seem to have difficulties in areas indicated by the score categories. Cases A and B were more confident in this respect.

For Cases C and D, their score profiles revealed possible weaknesses in grammar, vocabulary and written discourse which were revealed to some extent in the thematic analysis of their tutorials and analysis of their written work. Cases C and D did have 'spikey' profiles on their PTE Academic score report and their tutorials and reflections on their written work did indicate issues with their written discourse, vocabulary and grammar. In this way, their PTE Academic score profiles did have some predictive function.

Additionally, all the cases' high proficiency in oral and aural skills was reflected in their test scores, and this translated to their confidence in communicating in English in academic situations such as presentations and group work (Cases C and D). This oral/aural confidence may have arisen from the use of spoken English in daily life in Nigeria especially among the educated urban youth from which the cases came from.

- **RQ5 (Variables):**

What are the multiple variables that affect the academic performance of outer circle test takers on their chosen courses?

There are aspects of the cases' academic experience that cannot be accounted for or predicted by academic English proficiency tests such as the students' use of initiative, their personality, motivation and ability to get on in their subject and apply their subject knowledge and critical thinking skills (academic literacy). Other factors such as adaptability to new learning cultures (Cases B, C and D), working with diverse groups of English speakers (Cases A, B, C and D), and coping with unsatisfactory institutional experiences (Case A) are examples of adapting to academia and academic literacies.

Other variables impacting on their academic performance seemed to be associated with more "universal" academic skills such as academic essay writing skills, time management, editing and referencing skills, and structuring a piece of writing to the required standards in any discipline - all issues mentioned by various studies on academic performance (Hill et al, 1999, Brown, 2008, Cheng et al, 2004; Weir et al, 2013; Banerjee, 2003; Fox, 2004; Woodrow, 2006 and Ferguson & White, 1994) and all aspects which are not able to be predicted from general academic English language tests.

An example of a thematic map of the data for the case studies is displayed in figures 4 and 5 for Cases B and C. These maps were compiled using thematic analysis (Braun & Clarke, 2006).

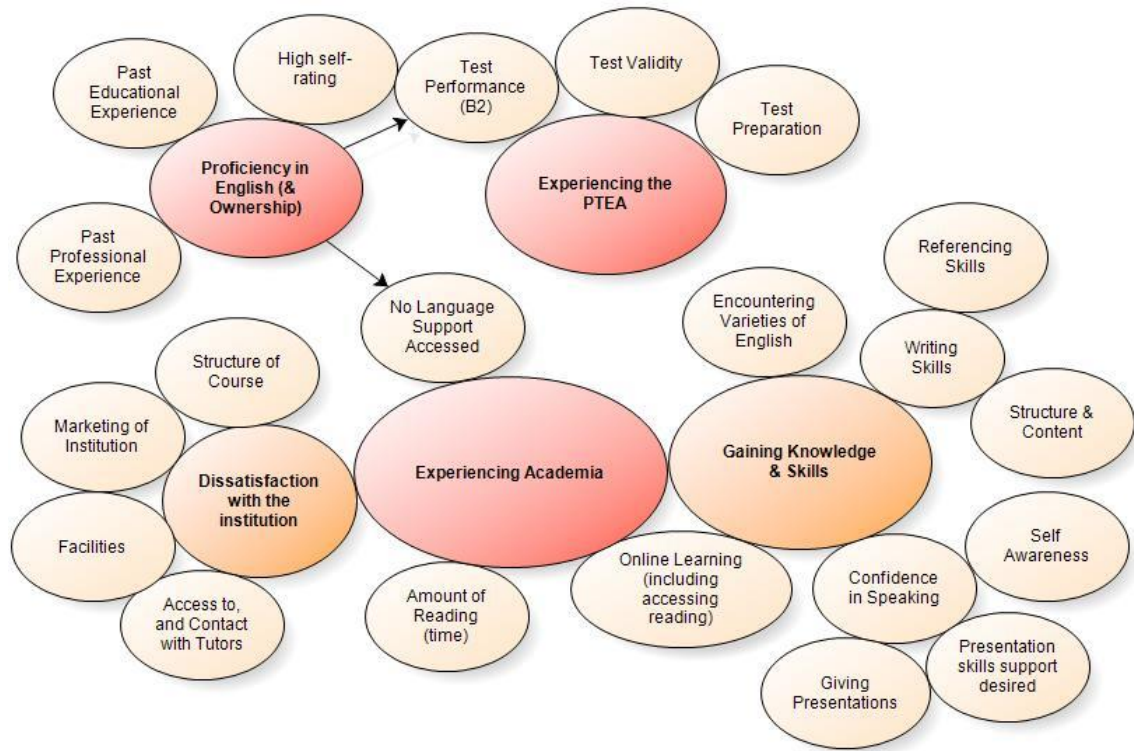


Figure 4: Case B - Thematic map of the multiple tutorials (interviews)

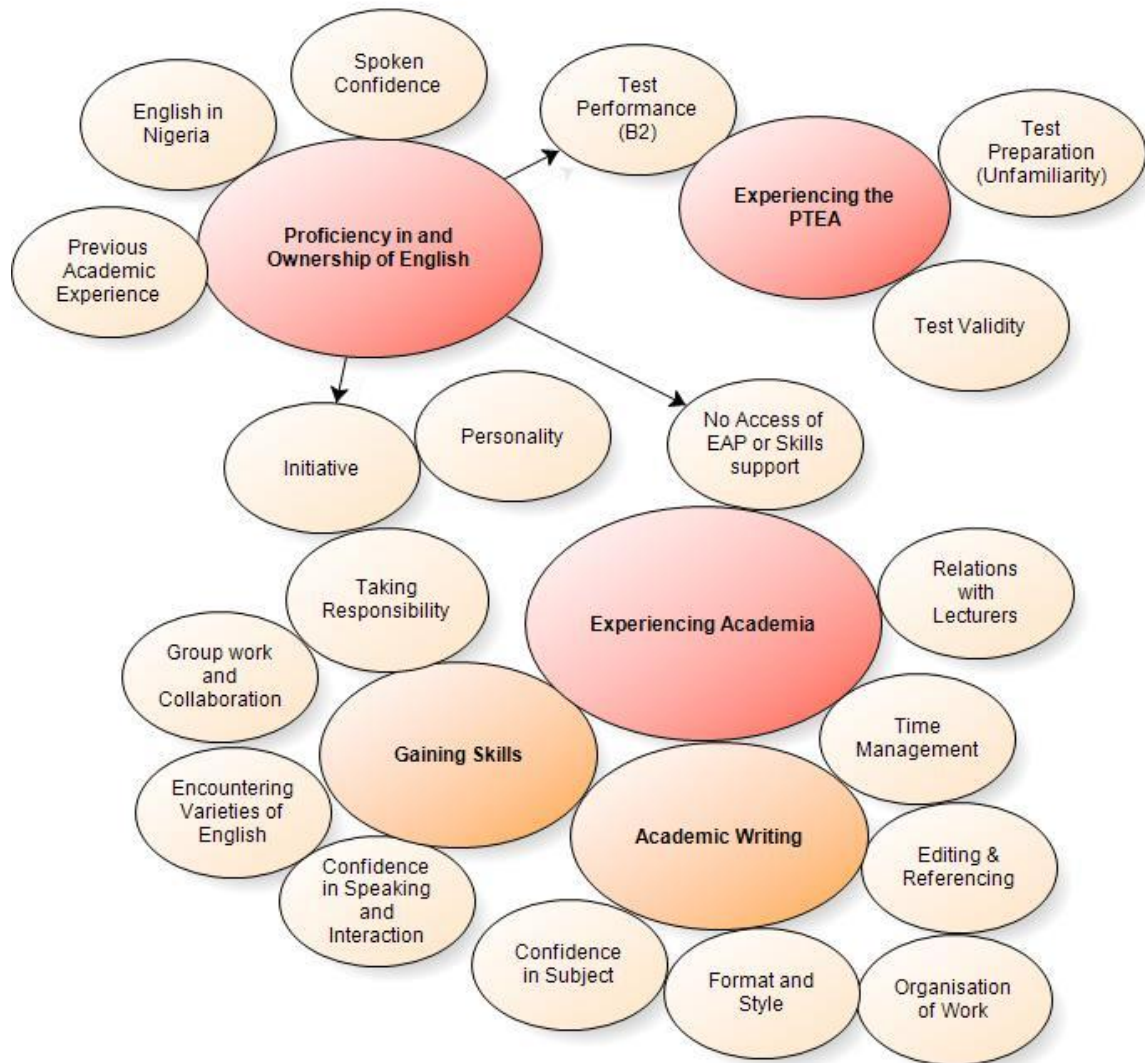


Figure 5: Case C - Thematic map of the multiple tutorials (interviews)

Implications and Contribution

The university survey data of the existence and acceptance of CSELTs indicates that there still exists a historical relationship between many UK universities and outer circle countries (particularly in the Commonwealth) which provides other means - other than that of SELTs - for indicating sufficient English language proficiency for university entrance. However, there are many pressures on UK universities to accept only SELTs, particularly regarding the UK Tier 4 policies.

The quantitative findings provide empirical evidence in strand one to indicate proficiency differences between test takers from the outer circle and expanding circles in terms of test performance on the PTE Academic. Outer circle proficiency as indicated or inferred by mean test scores indicates that many test takers from outer circle Africa, as well as Asian nations such as Singapore, Malaysia, the Philippines and India, are already at the proficiency threshold for university, possibly resulting from their domestic undergraduate experiences and societal use of English.

Limitations with the data included test takers not being able to indicate two languages as their L1s – they had to make a choice as to which was their L1 – something which might be queried. Secondly, there was no way of knowing why the individual had taken the test, many of the test takers might not have taken the PTE Academic as a means to gain access to university but may have taken the test as part of their immigration application for work or other reasons. Thus, the quantitative data in strand one was perhaps not representative of all outer circle applicants *to universities* in the inner circle. The cases studies themselves, as with all case studies, are illustrative of possible wider trends and themes applicable to a wider student body. However, similar case studies of cases from a variety of inner, outer and expanding circle countries would be a welcome addition to this study. Quantitative data in terms of wider surveys of the theme of ownership for example, would also be informative.

In the thematic analysis of the case study tutorials, the cases all express a confidence in spoken English, reflective of that found in similar studies (Zheng & Wei, 2014), and have score profiles which indicated that they would not be disadvantaged at university due to linguistic issues. Generally, all the cases coped well at university with the linguistic demands of their studies. This was suggested in strand 1 of the study whereby African test takers from the outer circle had statistically significant mean scores which corresponded to B2 or above on the CEFR. B2 is the CEFR level at which test takers will be able to “participate independently in higher level language interaction” (Pearson, 2012, p.4). Other outer circle test takers such as Singaporeans, Malaysians, Filipinos and some Indian L1 groups also performed similarly on the PTE Academic.

Looking at the case study, the four individuals from outer circle Africa all have a certain educational and societal background and comfort in English (ownership), their issues in academia are not to do with not having sufficient language proficiency, but to do with adjusting to being postgraduate students in academia in the UK.

The PTE Academic can be said to be predictive in the sense of showing that the cases scored at the threshold and their linguistic behaviour and competencies support these scores (from the case study evidence). There are aspects of the score profile of two of the individuals that point to potential gaps in the language proficiency of the test takers, and this is indicated to some extent in their academic performance. However, generally, the four students have confidence in

spoken English and they don't display a deficit of language at the threshold of proficiency for *independent* study in the UK.

The case study does indicate however that the PTE Academic can have some predictive validity in terms of anticipating language proficiency issues for certain cases when comparing the score profile with academic writing – an area where all can stand to gain from an improvement in written expression.

There may be some implications to do with how universities and testing organisations use the test in relation to some individuals from the outer circle, and ultimately the expanding circle, as many students from both those categories can have 'ownership' of English. Firstly, UK universities should consider the English of applicants on a case-by-case basis. That is, from a humanistic level it is important to consider the backgrounds of individual applicants – looking at their educational and professional experiences in the medium of English, and their identity vis a vis English, before deciding to ask them to take an IAET (International Academic English Language Test) such as the PTE Academic, IELTS or TOEFL-iBT.

This study indicates that if a student is from an outer circle country, it is likely that they will already have been educated in the medium of English, and from a test fairness point of view regarding the validity of asking the students to take an IAET in the first place, it might not always be an efficient or "fair" way of ascertaining their English proficiency. Students' performance on their CSELTs should be considered in the application, and where there are doubts, interviews or internal university tests could be conducted to ascertain suitable proficiency for the university programme.

The main implication of the study is that testing organisations, universities and researchers should consider the language background of test takers and conduct more research on the ownership of English and more critical analysis of the prior English proficiency of outer and expanding circle students in order to address potential issues of test fairness and validity of the test for certain individuals within those circles for whom it may not be appropriate for. The test specification of PTE Academic states that it is a test for "learners of English as a second or other language..." (Zheng & De Jong, 2011, p.4) but as can be seen from this study, many takers of International Academic English Language Tests such as the PTE Academic, may not fall neatly into this categorisation.

References

- Bamgbose, A. (1998). Torn Between the Norms: innovations in world Englishes. *World Englishes*, 17(1), 1-14.
- Banerjee, J. (2003). *Interpreting and Using Proficiency Test Scores*. (PhD), Lancaster University, Lancaster.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Brown, L. (2008). The Incidence of Study-Related Stress in International Students in the Initial Stage of the International Sojourn. *Journal of Studies in International Education*, 12(1), 5-28.
- Canagarajah, S. (2006). Changing Communicative Needs, Revised Assessment Objectives: Testing English as an International Language. *Language Assessment Quarterly*, 3(3), 229-242.
- Cheng, L., Myles, J., & Curtis, A. (2004). Targeting Language Support for Non-Native English-Speaking Graduate Students at a Canadian University. *TESL Canada Journal*, 21(2), 50-71.
- Council of Europe. (2009). Strasbourg: Language Policy Division.
- Davies, A. (2013). *Native Speakers and Native Users: loss and gain*. Cambridge: Cambridge University Press.
- Ferguson, G., & White, E. (1994). A Predictive Validity Study of IELTS. In (pp. 15-63). Institute of Applied Linguistics, University of Edinburgh: Melbourne Papers in Language Testing IELTS Research Reports.
- Fox, J. (2004). Test decisions over time: Tracking validity. *Language Testing*, 21(4), 437-465.
- Higgins, C. (2003). "Ownership" of English in the Outer Circle: An Alternative to the NS-NNS Dichotomy. *TESOL QUARTERLY*, 37(4, Winter), 615-644.
- Hill, K., Storch, N., & Lynch, B. (1999). A comparison of IELTS and TOEFL as predictors of academic success. *IELTS Research Reports*, 2, 62-73.
- Ingram, D., & Bayliss, A. (2007). IELTS as a predictor for academic language performance Part 1. *IELTS Research Reports*, 7.
- Kachru, B. B. (1985). Standards, codification and sociolinguistic realism: The English language in the Outer Circle. In R. Quirk & H. G. Widdowson (Eds.), *English in the World: Teaching and learning the language and literatures* (pp. 11-30). Cambridge: Cambridge University Press.
- Kruger, J., & Dunning, D. (2009). Unskilled and Unaware of it: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments. *Psychology*, 1, 30-46.
- Norton, B. (1997). Language, Identity and The Ownership of English. *TESOL Quarterly*, 31(3), 409-429.
- Pakir, A. (2000). Standards and Codification for World Englishes. In L. E. Smith & M. L. Forman (Eds.), *Literary Studies East and West, World Englishes 2000, Selected Essays* (Vol. 14). University of Hawai'i: University of Hawai'i.
- UK Visas and Immigration. (2014). Tier 4 of the Points Based System - Policy Guidance: Version 4/2014. UK: Home Office Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/261401/Tier4migrantguidance.pdf.
- Weir, C. J., Chan, S. H. C., & Nakatsuhara, F. (2013). Examining the criterion-related validity of the GEPT advanced reading and writing tests: Comparing GEPT with IELTS and real-life academic performance. *LTTC-GEPT Research Reports RG-01*, 1-43.
- Wilson, R.G. (2016) *The PTE Academic and Outer Circle Students: Assessing Proficiency in English, Ownership of English, and Academic Performance at UK Universities*. (PhD), University of Warwick, UK.
- Woodrow, L. (2006). Academic success of international postgraduate education students and the role of English proficiency. *University of Sydney Papers in TESOL*, 1, 51-70.
- Zheng, Y., & Wei, W. (2014). Knowing the Test Takers: Investigating Chinese and Indian (EFL/ESL) Students' Performance on PTE Academic. *The Asian EFL Journal Quarterly*, 16(1), 120-152.
- Zheng, Y. & De Jong, J. (2011, p.4) Research Note: Establishing Construct and Concurrent Validity of Pearson Test of English Academic https://pearsonpte.com/wp-content/uploads/2014/07/RN_EstablishingConstructAndConcurrentValidityOfPTEAcademicacademic_2011.pdf [accessed 8th March 2018]