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## **Teil A: Sprachgebrauch untersuchen, reflektieren und weiterentwickeln an der Hochschule**

Teil A beleuchtet Sprachgebrauch und Kommunikation in der tertiären Ausbildung. Die Reihe der Beiträge führt vom Lernort Klassenzimmer in die globalisierte Berufswelt. Zentrale Tätigkeiten, von denen die AutorInnen berichten: in englischer Sprache studieren in nicht-englischsprachiger Umgebung (Kapitel 1), die eigene Rolle im Sprachkurs finden (2), Lehrende an die Institution binden (3), Lehr-/Lerntexte für die Berufsbildung optimieren (4), Lexikographie fürs Studium nutzen (5), Prozessanalysen einsetzen in der Ausbildung zum Übersetzen (6), Konstruktionsgrammatik für die Übersetzer Ausbildung konkretisieren (7), kulturelle Kompetenz in der globalisierten Welt vermitteln (8), mit neuen Studienrichtungen ganze Berufsfelder prägen (9), Weiterbildung mit Forschung verknüpfen (10).



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# 1 From secondary school to universities of applied sciences: English through the educational continuum

**Abstract:** In Swiss higher education, the number of English-taught programmes has steadily increased in recent years. Most higher education institutions also offer English for specific purposes courses. The purpose of these courses is to equip students with the necessary skills to participate in disciplinary discourse in English and to sensitise them to lingua-franca communication at the workplace. Such courses themselves build on, and consolidate, the English language training received in the public school system. The present study examines the relationships between English language performance at the upper- and post-secondary level, and students' confidence in applying their language skills in international study programmes.

## 1 Conceptual framework

To date, the interface between pre-university English language development and success with English-taught programmes in higher education has generally been investigated by assessing the predictive validity of English language proficiency test scores with respect to subsequent academic success. Most commonly, this is done by comparing university Grade Point Averages (GPAs) with entrance exam scores of IELTS tests (International English Language Testing System – e. g., Hill, Storch, & Lynch, 1999; Dooley & Oliver, 2002; Woodrow, 2006; Hellekjær, 2009) or TOEFL tests (Test of English as a Foreign Language – e. g. Light, Xu, & Mossop, 1987; Al-Musawi & Al-Ansari, 1999; Chen & Sun, 2006; Maleki & Zangani, 2007). In other studies, the predictive validity of locally produced English proficiency entrance tests has been assessed (e. g. Rumsey, 2013).

The findings of these studies have been varied and at times conflicting. Clearly, academic success is the product of a number of factors beyond mere language proficiency. Stoyhoff (1997: 56), for example, found that in addition to language proficiency, learning and study strategies were associated with academic achievement among international students in the USA, including the integration of social assistance for students, the amount of time studying, and the degree to which students stay up to date with courses. Graham (1987: 508–515) noted nearly

thirty years ago the mixed results of TOEFL as a predictor of academic success, pointing out that multiple factors, including academic-specific skills and general aptitude, will influence academic achievement in addition to language skills.

Contextual factors may also cause variation in the results of this type of study. Vinke & Jochems (1993) investigated the relationship between TOEFL scores and academic success among ninety Indonesian engineers, as measured by scores on seven written examinations in Dutch university EMI programmes. A cut-off TOEFL score appeared to indicate the threshold at which academic success improved. They suggest that such thresholds may be discipline- or institution-specific. If true that individual institutions or even disciplines within institutions have potentially unique characteristics, it follows that localised studies should be performed to examine these relationships.

## 2 Method

In the present study context, a major university of applied sciences in Switzerland, admission does not require an English proficiency test, unlike many other universities that offer EMI courses/modules. It is assumed that students have reached a minimum B1 level (Common European Framework of Reference for Languages) as part of their secondary school-leaving certificate. In the absence of TOEFL or other such standardised test scores, final grades in upper-secondary EFL courses are here taken as an indicator of the level of English proficiency attained prior to university-level instruction. This is justified in that the Swiss public school system, by government mandate, is required to assess foreign language proficiency (in this case English) in a manner consistent with the levels described within the Common European Framework (CEFR) (CDIP, 2011), the *de facto* reference for foreign language proficiency assessment. To explore the relationships that may exist between pre-university language learning, university-level language learning and students' confidence in applying their language skills in an international study programme, we compare:

- (1) secondary school-leaving certificate outcomes (grades) with language skills confidence
- (2) first-year university English for specific purposes course outcomes (grades) with language skills confidence
- (3) language skills confidence with students' confidence in passing English-taught modules.

The data in the present study is taken from a survey that was administered in the autumn semester of 2015, and was analysed *post hoc* using a non-experimental

approach. Variables of interest from the dataset are detailed in table 1. The survey was designed to determine the factors that influenced students' decisions to enrol in an optional international study programme that is offered exclusively at the School of Engineering (ZHAW). Students who fulfil the requirements of the programme receive a certificate upon completion of their bachelor's programme. Requirements include attaining a minimum of 20 ECTS points through English-taught courses at the institution, work or study abroad, the completion of a module on Intercultural Communication and Management, engaging in transcultural activities and obtaining a recognised certificate in English at C1 level.

**Table 1:** Pearson's  $r$  for all variables in analysis, 1-tail – based on expectation that positive skills would have a positive rather than a negative impact on other variables – *ns* indicates correlation is not significant at  $p = 0.05$ . Left-hand column lists variables used in the present analysis.

	Grade in last year of high school English	Grade in English for Engineering (first year)	Confidence in passing academic year	Confidence in passing EMI modules
<b>Listening – lecture comprehension</b>	ns	ns	ns	$p < 0.05, r = 0.39, r^2 = 0.15, N = 44$
<b>Reading – academic texts</b>	ns	ns	ns	ns
<b>Writing – academic papers</b>	ns	$p < 0.05, r = 0.32, r^2 = 0.09, N = 36$	ns	ns
<b>Speaking – monologue presentations</b>	ns	ns	ns	ns
<b>Speaking and listening – discussion</b>	ns	$p < 0.05, r = 0.29, r^2 = 0.1, N = 36$	ns	ns
<b>Overall language confidence</b>	ns	ns	ns	ns
<b>Confidence in passing academic year</b>	ns	ns	–	ns
<b>Confidence in passing EMI modules</b>	ns	ns	ns	–

At the time of the survey, participants had completed their first year in the bachelor's programme, including the ESP course, and had begun the second year with English-taught modules. Out of 360 students in the cohort, 49 responded (14% – all Swiss-German/German native speakers). This sample size, while small, provides an adequate basis for exploratory purposes. Given values of

$r = 0.3$ ,  $p = 0.05$  (1-tail), and a power<sup>1</sup> requirement of 0.95, a sample size of  $n > 17$  is needed.

Language skill items were derived from Gorges, Kandler, & Bohner (2012), and represent skills required to manage EMI settings effectively (see Gautschi & Studer 2017, in press). These items were all self-assessed by participants. Previous studies that have used self-assessment to measure how language skills correlate with academic performance include Berman & Cheng (2010 – foreign students at a major Canadian university), Martirosyan, Hwang, & Wanjohi (2015 – international students at a Louisiana, USA university), and Hellekjaer (2009 – foreign students in Norway).

The remaining two variables, confidence in passing the academic year and confidence in passing EMI modules, are based on items used in a previous study within the same institution (Studer & Konstantinidou, 2015). Statistical analyses were performed using GNU PSPP and R (version 3.3.1) Statistical Analysis Software.

### 3 Results

- (1) No significant relationship was found between upper-secondary school grades and target language skills confidence (neither globally nor individual skills).
- (2) No significant relationship was found between first-year ESP language course grades and language skills confidence globally. In contrast, a significant relationship (with slight explained variance) with academic writing and confidence in seminar discussions (listening and speaking) was found.
- (3) No significant relationships were found between confidence in passing the year of studies and upper-secondary grades, ESP grades, or language skills confidence (neither individually nor globally). However, a significant correlation with small explained variance was found between lecture comprehension (listening) and confidence in passing English-taught modules. No significant relationships were found among the other skills of academic writing, academic reading or presentation competence.

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<sup>1</sup> “power” indicates the probability of finding an effect that is in fact present – compare with  $p$  values that indicate the probability of falsely rejecting the null hypothesis or finding an effect when, in fact, there is none. See `pwr.r.test` in R package “pwr” for more details.

## 4 Discussion

As a working hypothesis, one would expect to find some degree of correlation between English course performance, English skills confidence, and confidence in passing English-taught courses. Our small-scale analysis shows this expected correlation is generally lacking. Our first finding suggests that upper-secondary level skills development – as indicated by final grades – makes little contribution towards the configuration of skills needed for EMI in higher education. This is in line with a point often raised in the literature. Hellekjaer (2009: 206, 210) found, through self-assessment data validated through the use of the IELTS Academic Reading Module, that Norwegian university students expressed serious difficulties in their reading abilities, concluding that upper-secondary school EFL instruction inadequately prepares students for reading. Scarcella (2003: iii), with reference to English-speaking countries, notes that even though the development of academic English skills can have a strong impact on career and academic success, students remain underexposed to academic English in school settings. Furthermore, he argues in favour of introducing academic English at pre-university level and improving teachers' awareness and support to that end (Scarcella 2003: 3, 6). Slama (2012: 278) also makes a case for increasing the emphasis on academic language skills development among adolescent English Language Learners (ELLs) in the United States. Roessingh & Douglas (2012: 80) note how ELLs who graduate from high school (in Calgary, Canada) are insufficiently prepared for the language demands at tertiary level. Our analysis also indicates that higher education objectives within the present context could be facilitated by improved academic language awareness at the upper-secondary level, and that adjustments to high school curricula may improve the impact of upper-secondary EFL skills development on subsequent language confidence and university-level achievement.

Regarding the impact of ESP instruction on language skills confidence, our findings show that although ESP instruction contributes to the development of some skills (academic writing and seminar discussion), it does not impact others (listening, reading and presentation skills). This could imply that the assessment criteria or teaching priorities of such ESP courses do not adequately reflect specific skills required for subsequent EMI modules, and adjustments to such ESP courses may facilitate improvement in these areas.

Regarding the factors that influence confidence in future academic success in EMI modules, our findings suggest that this is most strongly shaped by a small range (paper writing and discussion skills) rather than the full range of language skills. This further implies that steps should be taken early on to inform students that success in EMI requires a broader range of skills, and to implement

pedagogic changes accordingly. This is in line with the conclusions of Studer & Konstantinidou (2015: 28–30), who argue in favour of enhancing key language skills as early as possible, since linguistic confidence is tied to language attitudes and achievement (see Gardner, Tremblay, & Masgoret, 1997). It is worth noting that among the language skills, lecture comprehension was the skill that students, on average, had the most confidence in, paper writing the least (see table 2).

**Table 2:** Descriptive statistics for language sub-skills (maximum = 4) and overall language confidence (maximum = 20).

Variable	N	Mean	SD
Listening – lecture comprehension	44	3.55	0.7
Reading – academic texts	44	3.27	0.82
Writing – academic papers	44	2.91	0.77
Speaking – monologue presentations	44	3.23	0.86
Speaking and listening – discussion	44	3.3	0.82
Overall language confidence	44	16.25	3.24

## 5 Conclusion

These exploratory findings indicate the potential value of further experimental research that comprehensively tracks student performance at high school, university or in other post-high school education to monitor the development of language skills. This would facilitate the improvement of language training prior to EMI scenarios and subsequent professional communication contexts that require English. Ideally, this would entail the assessment of specific language skills through validated testing instruments, in order to confirm or disconfirm the tentative findings presented here. Furthermore, we suggest that research would be enriched by examining, *in situ*, how language skills and education outcomes relate to workplace language competence. Such investigations may include longitudinal studies whereby educational pathways and end-goal professional language needs are mapped, for the purpose of improving the predictive validity of upper-secondary and higher education language training.

The present analysis has a number of limitations. First, the sample size is small and the non-experimental design cannot adequately investigate causality. Second, the scope of the variables included in the study do not account for other areas that may influence students' confidence in their academic outcomes, and consequently no complete picture of explained variance can be provided. Third, while they are principled approximations, the use of self-assessment as

a substitute for expert assessment via proper testing necessarily undermines the validity of our findings to some degree. Nevertheless, our analysis provides useful exploratory data that can indicate potential ways to improve upper-secondary and university-level language training. Given the importance of effective communication in workplace contexts where English is needed, and the acquisition of skills that enable it, our mandate at the Department of Applied Linguistics is to empower students in that regard. The present study is a small step forward in a research direction that examines language learning within the broader educational continuum and its relationship to subsequent professional communication.

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