A Study in Singapore: Perceptions about the Importance of
Written English Language and Undergraduates' Competency Level

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Abstract
This exploratory study aimed to examine the perceived importance of written English language and level of competency among undergraduates in a public university in Singapore. The study arose from faculty's observations and concerns about students' written English proficiency. The study involved three targeted sample units: undergraduates, faculty and industry partners. These groups were invited to participate in Qualtrics online questionnaires customised for each of them. SPSS Statistics version 25 was used to generate descriptive statistics and perform cross-tabulations. The results from 215 undergraduates, 92 faculty and 110 industry partners suggested that all three sample units agreed on the importance of written English for academic studies and professional work. They differed in observations about undergraduates' written English competency levels, students' keenness to improve, and perceived optimism that improvement can be achieved during university studies. Three recommendations are proposed. Firstly, faculty's written English standard could be enhanced so that they become positive role models for students. Secondly, feedback for student is imperative if English assessment forms part of the marking rubrics. Thirdly, the fundamentals of English language could still be taught at the university level. The conclusion is that the university can be the last opportunity for undergraduates to improve their English competency before joining the workforce.

Keywords: undergraduates, written English, perceptions, pedagogy

1   Introduction

1.1   The Role of English Language in Global Business

English is the most common language used for communication in business, politics, education, culture, science and technology (Mauranen, 2015), widely accepted across linguistic and ethnic boundaries (Crystal 2003). Crystal (2008) observed that user numbers are rising by the day, with 75 per cent of English speakers being non-native users (McKay, 2002; Neely, 2012; Zhu & Deng, 2015).

For global companies, the use of English enables them to achieve business objectives with greater adeptness and productivity (Nickerson, 2015). For individuals, the strongest motivators for learning English include interest in travel, making overseas contacts, chance to work in international organisations, better job prospects and higher pay (Li & Moreira, 2009; Martyn, 2018).

Indeed, Chattaraj (2015) labelled English as the 'medium of prosperity', in reference to the commonly perceived relationship between English competency and career success in her native country India. The positive impact of English language competency on career advancement has also been highlighted in several studies (e.g., Barner-Rasmussen & Aarnio, 2011; Chakraborty & Bakshi, 2016; Mauranen, 2015).

1.2   English Language Training in Higher Education (International Context)

1.2.1   English Medium Instruction Programmes: The Growth

In response to forces of globalisation, higher education institutions have sought ways to stay relevant and connected to the rest of the world. As English becomes a 'shared second language of advanced education' within Academia (Brumfit, 2004, p. 166), the implementation of English Medium Instruction (EMI) programmes expands. For many higher education institutions, the promotion of English use would make them more attractive to foreign talents (both faculty and students), boost their academic research in English, and consequently improve their international prestige (Coleman, 2006).

The EMI phenomenon has spread across Europe, Middle East and Asia. Many European nations that once guarded their local identities staunchly have integrated English training in their higher education, using it to promote international exchange and enhance their standing as members of the European Union (Coleman, 2006).

Wachter and Maiworm (as cited in Macaro, Curle, Pun, An & Dearden, 2018) recorded a 229% increase in Europe's EMI implementation between 2002 and 2007. The same shift was observed in Middle Eastern countries and Asian countries, including those that were traditionally associated with suspicion of foreign influence (Choi & Lee, 2008; Macaro, et al., 2018). Even countries such as the UK, USA, New Zealand, Canada and Australia, often referred to as the 'inner circle' of English language users (i.e., native or first language users), are paying closer attention to issues related to the practice of English immersion (Dalton-Puffer & Smit, 2013).

1.2.2. English Medium Instruction Programmes: The Challenges

Notwithstanding national and institutional efforts to facilitate English language development in higher education, Murray and Hicks (2016) acknowledged that implementations have been challenging due to practical and ideological concerns.

Practical concerns include the adequacy of resources to provide sustainable help to students, getting of subject faculty's support in students' language development, among others. Ideological concerns include conceptual differences across disciplines and institutions on what constitute language proficiency, academic literacy and professional communication skills.

Murray (2010) added that there is no 'one-size fits all' solution for helping students with development needs. The intricate status of English to each learner – whether it is a first, second or foreign language - implies that learner needs are different and hence, different pedagogies are needed. These concerns highlighted the responsibility of institutions and educators in ensuring that students have the right English language skills to be productive throughout higher education and eventually at the workplace.

2   English Language Education in Singapore

2.1   The Objectives of the English Language Curriculum

Although Singapore has four official languages (English, Mandarin, Malay and Tamil), English has been the language of the government and business since the 1960s. This move was adopted to foster a common identity among the four main ethnic groups in the population, and to facilitate economic growth (https://www.straitstimes.com/singapore/in-his-own-words-english-for-trade-mother-tongue-to-preserve-identity).

In keeping with this decision, the medium of instruction in school, from primary to secondary to post-secondary levels, has been English (Bolton, Werner & Bacon-Stone, 2017; Leimgruber, 2013). The aims of the syllabi are for students to achieve an "internationally acceptable English that is grammatical, fluent and appropriate for purpose, audience, context and culture" (Ministry of Education).

2.2   Singapore Students' English Standard

The 2018 EF English Proficiency Index ranked Singapore in third place in the world, and in top position in Asia among 21 countries. (https://www.ef.sg/epi/regions/asia/singapore/). Notably, the overall pass rate in English at Singapore-Cambridge General Certificate of Education Ordinary 'O' level examinations has improved from 89% in 2016 to 89.6% in 2017 (https://data.gov.sg).

Despite such positive indications, the research team's faculty-colleagues have observed that undergraduates are unable to write effectively in English. To elaborate, this means that students may be able to express themselves adequately in general but falter when it comes to content communication in their subject areas (Airey, 2011; Lave & Wenger, 1991; Hanington & Renandya, 2017).

2.3   Local Universities' Emphasis on Communication Skills

The public universities in Singapore all offer Academic English courses to undergraduates, through the establishment of language centres and facilities. At Singapore Institute of Technology (SIT), the institution in which this study was conducted, the Centre for Communication Skills delivers compulsory communication skills modules and provides consultation sessions for students on their assignments.

The local universities largely include English proficiency requirement in their admission criteria, though in different forms. Some require foreign applicants to produce proof of minimum grade attainment in international English proficiency exams such as IELTS and TOEFL. Others stipulate qualifying written test or personal statement submission as admission requirements.

3   Research Objective and Methodology

Bolstered by the prevailing importance of English language and the above highlighted concern among faculty, this exploratory research set out to examine undergraduates' written English in the context of SIT.

SIT is Singapore's fifth autonomous university, established in 2009. It positions itself as a university of applied learning and has more than 6,000 students enrolled in over 40 degree programmes, offered by either SIT itself or jointly with SIT's overseas university partners.

The degree programmes and faculty's division are structured based on clusters. The five clusters are:
•   Chemical Engineering and Food Technology.
•   Design and Specialised Businesses[1].
•   Engineering.
•   Health and Social Sciences.
•   Infocomm Technology.

3.1   Sampling

This cross-sectional research study involved three sample units related to SIT. A non-probability purposive sampling plan was adopted. The first sample unit comprised SIT's undergraduates who were in their second year of degree programmes. These students were targeted because they would have experienced one year of university education compared to the freshmen. They were also likely to have a more permitting academic load compared to final-year students.

The second sample unit consisted of SIT's faculty who have first-hand encounters with students' writing skills. The third sample unit comprised industry partners who have interacted with students during work attachment that can last from four to 12 months.

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[1] Accountancy, Hospitality Business, Food Business, Design, and Air Transport Management degree programmes.

All second-year undergraduates, faculty and industry partners from various degree programmes were contacted. It was a blanket inclusion of participants to reflect the direct relevance of the research topic for all three groups of participants. There were no other valid exclusion criteria.

3.2 Method

All three sample units were invited via email to participate in an online survey, on a voluntary basis. The invitation email contained a participant information sheet as well as a link to Qualtrics survey.

There were different versions of questionnaire for the three separate groups. Each questionnaire version had four to six questions on five-point Likert scale, that are related specifically to perceptions of the importance of English language and undergraduates' competency level. Cronbach's alphas for the scales were 0.65, 0.63 and 0.61 for the questionnaires that were administered to undergraduates, faculty and industry partners, respectively.

The Cronbach's alphas might be lower than the standard value for scale reliability. But several studies have discussed about the discretionary use and interpretations of these values.

Herman (2015) stated that Cronbach's value tends to underestimate the actual internal consistency of scales if they consist of fewer than 10 items, which was an intentional decision in this study to make it user-friendly for all three sample groups. The effect of an increased number of items on higher Cronbach's alphas was reiterated in other studies (Griethuijsen et al., 2015; Streiner, 2003; Tavakol & Dennick, 2011).

In addition, Taber (2018) found that there is a diverse list of descriptions to interpret the different ranges of Cronbach's alpha values, including 'reasonable' (0.67-0.87), 'adequate' (0.64-0.85), 'moderate' (0.61-0.65), 'acceptable' (0.45-0.98) and 'sufficient' (0.45-0.96).

In conclusion, the use of absolute alpha value without context is a problem, and lower alpha values do not imply an unsatisfactory instrument (Plummer, & Tanis Ozcelik, 2015; Vaske, Beaman, & Sponarski, 2017).

The Cronbach's alphas and descriptive statistics were generated via SPSS Statistics version 25, which was also used to perform cross-tabulations and comparison of means for the ordinal variables.

Ethical approval was granted by SIT's Institutional Review Board. There was no collection of information that could identify any individual or industry organisation.

4 Research Outcome

4.1 Number of Responses

Over the month of March 2019, a total of 2,566 potential participants were contacted to participate in the study. They comprised 1,861 undergraduates, 234 faculty and 471 industry partners. The eventual response numbers were 215 undergraduates, 92 faculty and 110 industry partners.

4.2 Research Findings on Undergraduates

The 215 undergraduate respondents were diverse in terms of their accumulated GPA scores. At the point of survey in March 2019, 30.6% have attained 4.0 and above, 60.0% have GPA between 3.0 and 3.9, and the remaining 8.8% obtained 2.9 and below.

Among them, 92.6% expressed that written English is important or very important to their academic studies. The favourable scores were particularly high among students from Design and Specialised Businesses, as well as Health and Social Sciences programmes. 78.2% and 75.8% of students from these two respective clusters considered written English to be very important.

A total of 89.7% of students indicated that written English is important or very important for their future careers. While the aggregate score was still positive, it was lower compared to the importance for academic studies, which is explicable for a sample unit that comprised undergraduates.

When asked to self-assess their current standard of written English, 10.2% among the 215 respondents rated their standard as excellent. Within each of the five clusters of degree programmes, Infocomm Technology students had the biggest proportion (24.3%) that ranked their English standard as excellent. Comparatively, students from clusters that traditionally place higher emphasis on English, assessed their own standards lower. Only 6.4% of Design and Specialised Businesses students, and 7.6% of Health and Social Sciences students appraised their standard as excellent.

Among the 215 students, 4.7% evaluated their standard to be poor, citing reasons such as:
• Non-use of English at home.
• Low interest in English language.
• Bad foundation and lack of practice.

When the GPA scores were added to the analysis, it was shown that 13 students (6.0%) with GPA scores of 2.9 and below rated their own English standard as excellent or good. In contrast, 40 students (18.6%) who had GPA scores of 4.0 and above rated their English standard as adequate/fair or even poor.

When asked about the prospect of improving their written English during their university studies, 57.2% of students were optimistic and very optimistic, and 35.5% were moderately optimistic. Such finding augurs well for any English modules

offered at SIT because students are likely to take them seriously enough. The inference was further justified by students' responses to the question of whether they were keen to improve their written English, to which 84.2% responded they were keen and very keen.

When asked about the area they wish to improve most, 59.5% chose 'thought and organisation' over aspects like structure (14.0%), grammar (11.2%) and vocabulary (10.2%). This implies that students are aware that writing is a reflection of clarity, development and organisation of thought, which aligns with the conceptions of "knowledge telling" and "knowledge transformation" expounded by Bereiter and Scardamalia (1987).

Additionally, students were clear about their preferred means of seeking improvement for their written English, with 52.6% opting for one-to-one or one-to-group consultations. Students value interactions with faculty to clarify their doubts, and 61.2% of them opined that faculty who teach their core modules are most suited to help them improve their written English.

When it comes to seeking improvements, students expressed their thoughts about the need for post-assessment feedback:

"… professors can share with us our submission … if our proficiency in English was assessed."

"Review of assignments is particularly useful … to identify mistakes and structural lapses."

Almost one third (30.2%) of students want writing practice activities embedded in their core modules. This supports the underlying principle of Content and Language Integrated Learning (CLIL) which prescribes that content teachers (i.e., core modules faculty) should also focus on students' language.

A recurrent comment from students was that their faculty's own command of English is often lacking, and not meeting the expectations of students.

"Some professors are not very competent in English language, hence core modules do not help us to improve our written skills."

"Lecturers are unable to demonstrate proper command of the language, yet expect student to present a perfectly written paper. Maybe it should start from the top instead of picking on students."

"The English spoken by some of the faculty is not properly structured and with poor grammar. This poses a doubt when it comes to the faculty marking our written report."

Students also called for more focused, industry-specific contextualisation in the communication modules:

"… consultation by communication staff is not helpful as they lack contextual knowledge on the topic that the essay is written for."
"… DO NOT help our English … unless they re-structure the whole module to be leaning towards improving written English."

"… Diagnostic Radiography course NEEDS specialised tutors for their assignments."

4.3   Research Findings on Faculty

The survey captured 92 responses from SIT faculty who teach degree programmes across the different clusters. With regard to the perceived importance of written English in their students' academic studies, 61.5% of faculty decided that it is very important, 35.2% felt it is important, while 6.7% thought it is moderately important. There were nil responses to 'unimportant' or 'very unimportant'. This result pointed to the correlation between academic success and strong writing skills that faculty associate with:

"Writing well serves to bring about clarity."

"Their ability to explain their work and solutions in writing directly affects how well their work and solutions are received. Hence, the more clearly and accurately they write, the more marks they can get."

As for the perceived importance of written English in their students' future career, all faculty agreed that it is important, albeit to varying degrees. As many as 93.3% expressed that written English is very important or important to their students' professional development. Only 6.7% rated this criterion as moderately important.

This outcome attests to the sense of urgency felt among faculty worldwide and within Singapore about the importance of students' mastery of English for employability and workplace success. The perceived correlation between effective writing skills and professional and leadership success is captured by some faculty as follows:

"Being able to speak and write well is a pre-requisite for any profession."

"The standard against which I assess the written English for our students is that of a leader who needs to persuade stakeholders across levels … to argue for change that is needed to transform the healthcare landscape …"

When it comes to faculty's perception of students' current standard of written English, the results were mixed: 58.7% of faculty felt that students' standard is just adequate / fair, 19.6% rated it good and excellent, with the remaining 21.7% rating it as poor and very poor. Some faculty wrote:

"I teach across clusters and note that the English level is very different from programme to programme, cluster to cluster."

"There is a broad range in students' writing capabilities. Some are quite fluent, while others are very weak …"

These responses served to point out the pitfalls of drawing simplistic or over-generalised outcomes from such a study. This reinforced, to some extent, Murray's (2010) assertion of the term language 'proficiency' as a "nebulous, ill-defined concept" (p.57) that requires more rigorous clarification, and not to be confused with 'academic literacy' and 'professional communication skills'.

The response to the question determining faculty's degree of optimism that students can continue to improve their written English was generally favourable. There were 90.2% who are at least optimistic vis-à-vis 7.6% who are not optimistic and 2.2% who are very un-optimistic.

The positivity faded somewhat in the question on whether faculty agree that students are keen to actively improve their written English. Only three respondents (3.3%) answered 'strongly agree', 33.7% cited 'agree', 39.1% were 'undecided', 20.7% answered 'disagree', and 3.3% identified with 'strongly disagree'.

Thus, while 90.2% of the faculty were optimistic that students can continue to improve, more than 60% were unsure, or disagreed to varying degrees, about students' seriousness to improve. The faculty's written comments reflected their perceptions of some students' 'slack' attitude:

"The students are aware that their English is sub-par, but they tend to blame the material and the industry. They seem to have the impression that the industry should put things simpler … rather than the notion that they should be improving themselves."

"I suspect the students are interested in improving, but only if it can be done without much effort ..."

Concerning faculty's pedagogical practice of including written English in the project assessment rubrics, 68.5% answered that they do so frequently or very frequently, 23.9% said 'occasionally', 6.5% indicated 'rarely', and 1.1% claimed 'never'.

Among the faculty who frequently or very frequently included written English in project assessment rubrics, there were different adoption rates among the faculty of the respective clusters:
• Design and Specialised Businesses (83.3%).
• Health and Social Sciences (78.3%).
• Chemical Engineering and Food Technology (60.0%).
• Engineering (58.0%).
• Infocomm Technology (5.8%).

For faculty who expected good writing skills among students, they also deemed it as important to integrate the teaching of English writing into content teaching:

"Written English has to be embedded into modules and needs the support of faculty to level it to acceptable standard." (sic)

These sentiments reinforced the emphasis of Content and Language Integrated Learning (CLIL) (highlighted in section 4.2) which outlines the dual responsibility of

subject teachers in bringing about content and language learning (Dalton-Puffer & Smit, 2013; Meyer, 2010).

Faculty's additional comments also stressed the value of provisional English classes and coaching - a practice adopted by many HEIs worldwide for students who need help with their English language skills.

One faculty expressed satisfaction with the help offered by SIT's Centre for Communication Skills, while others recommended how these initiatives can be made more effective:

"May not be an effective way to run just single writing module in lecture style. Continuous throughout the whole course would be worth to explore."

"Should make the academic writing workshops specific to each cluster more regularly, which will allow students to choose the relevant ones when needed." (sic)

4.4   Research Findings on Industry

The 110 respondents were from five industry sectors that mirror the five degree programme clusters. The industry partners who responded were mainly from the Health and Social Sciences sector (55.5%), followed by the Design and Specialised Businesses sector (20.0%).

Collectively, 97.3% of respondents across the sectors indicated that written English is important and very important in their industry. The remaining 7.3% indicated that it is moderately important. No industry partner thought that written English is unimportant.

It seems that the importance is prevalent across the sectors for proposal writing and email correspondences. However, the environment in the industry may determine the extent of importance:

"PT (physiotherapists) need to have a good command of English … for accurate and concise clinical documentation, and discussions at ward rounds."

"There is an increasing demand for accountants to communicate well."

"While the English language is important in the manufacturing industry, we have identified factors limiting the proper use of English; namely: the education level of other employees, and whether it is socially appropriate ... if many of the employees are not doing so."

Industry respondents opined that logic, reasoning, ability to connect with audience and convey concisely are important in the command of a language. One example of industry's assessment is reflected in the comment below:

 "I have noticed that the students who have done internship or IWSP lack the ability to summarise. There is a tendency to write down everything, and still miss the key points that they really should highlight."

There is acknowledgement that the wide use of social media plus the prevalence of Singlish and Mandarin do not help the students' English standard. Industry partners had to guide interns in the preparation of presentations and in communication with higher authorities.

Concerning the written English standard of undergraduates (across various Singapore universities), industry respondents assessed it to be generally good or adequate. Only 7.3% valued it as excellent. The 2.7% that rated it as poor consisted of industry partners from the two sectors of Design and Specialised Businesses, as well as Health and Social Sciences.

When compared with students from other local universities, 93.5% appraised SIT students' written English standard to be good or adequate / fair, 4.7% rated it excellent and 1.9% thought that it is poor.

The respondents were mostly optimistic or very optimistic (74.5%) that students can continue to improve their written English during their university studies. Among the 7.3% that were not optimistic, 4.5% were from the Health and Social Sciences sector.

This optimism could stem from the conviction that the university might be the last opportunity for students to hone English writing through reports, projects and examination writing. The lack of optimism was backed by the observation that students are not engaging in activities that will help improve their English standard:

"To increase written English competency, one needs to read a lot … not just goggle articles, but read widely both fiction and non-fiction. With the current 'screen' generation and online learning mode, I am only moderately optimistic that students are able to improve their English language to articulate appropriately in the working world."

4.5   Comparative Analysis Across the Sample Units

Slightly more faculty (95.7%) than undergraduates (92.6%) agreed that written English is important or very important in students' academic studies. However, based on independent-samples median test, the medians across the faculty and the undergraduates were the same.

When it comes to students' future career in the industry, both faculty (91.3%) and industry partners (97.3%) evaluated written English to be important or very important, more than the undergraduates themselves (89.3%). However, the medians across the three sample units were similar.

With regard to students' current standard of written English, the medians for the faculty and the undergraduates were different ($p =.000$). Only 1.1% of faculty rated students' written English as excellent. This contrasted with the undergraduates' self-assessed 10.2% and the industry partners' 7.3%.

The faculty's critical opinion was further noted in the 21.7% who assessed students' written English as poor or even every poor. In contrast, only 4.6% of undergraduates thought likewise of their own standard. In fact, 68.2% of industry partners described

SIT students' written English to be good or excellent vis-à-vis the standards of students from other local universities.

Industry partners are also the most hopeful group, with 74.5% being optimistic or very optimistic that students can continue to improve their written English during their university studies. Faculty and undergraduates were less positive, at 53.3% and 57.2% respectively, with different medians across the two groups ($p = .002$).

The biggest difference in results was related to the seeking of improvements. Among the faculty, 37.0% agreed or strongly agreed that students are keen to actively improve their own written English. This contrasts with the 84.2% of undergraduates who indicated their eagerness to enhance their written English standard. Expectedly, the medians across the two groups were different ($p = .000$).

Concerning the role of faculty (of core modules), 60.9% of undergraduates expressed that faculty are important or very important in helping students to improve their written English. Faculty demonstrated awareness of this responsibility, as seen in the 68.5% who frequently or very frequently include written English in their project assessment rubrics.

5   Discussion

The aspect where all three sample units - undergraduates, faculty and industry partners - concurred to a high extent was that English language is important for academic studies as well as professional career. This outcome reinforced existing literature at two levels. At the organisational level, it is the *de facto* global language for organisations to meet commercial objectives (Crystal, 2003; Nickerson, 2015); and in Singapore, English is the official business language. At the personal level, linguistic competency could impact career advancement in terms of better pay and jobs (Barner-Rasmussen & Aarnio, 2011; Li & Moreira, 2009).

Despite the early commencement of English language education in Singapore schools, the perceived standard of undergraduates' English proficiency is not correspondingly favourable, even among students themselves.

From this study, the following inferences can be made regarding how undergraduates' English competency can be enhanced. These observations include the part of faculty role-modeling good writing standards, and increased contextualising of communication skills programmes to make them more industry-focused. The final responsibility must rest with the students, calling attention to students who view language classes as a dispensable appendage in their core curriculum.

While undergraduates in this study had expressed optimism and keenness in improving their English standard during their university studies, and industry partners had shown similar optimism, faculty's responses were more reserved. This might be due to faculty's perception of the level of keenness displayed by their students.

All the suggestions and disparities in perceptions confirm existing literature that English programme implementations are much more complex in reality, due to a combination of practical and ideological concerns, as outlined in section 1.2.2.

6 Recommendations

There are three main recommendations, all pivoted on faculty's role and pedagogy. Firstly, faculty's written English standard must be upkept to be positive role models for students. Secondly, besides including English in assignment assessment rubrics, faculty can facilitate students' language learning by providing timely feedback to students in this area.

Lastly, SIT's current communications modules may be strengthened via two approaches. The first approach is to capitalise on students' enthusiasm to learn the fundamentals of English writing and teach them, alongside the honing of students' skills in 'thought and organisation', identified by 59.5% of students as a critical area for improvement. The second approach, as suggested by students, is to increase contextualisation of contents to make the modules more subject- and industry-relevant.

7 Research Limitations and Future Possibilities

The first limitation is that the study was localised in one university. Thus, the generalisation of results to the entire local population is limited. The second limitation is the use of online survey as the research tool. There were no face-to-face dialogues to collect more qualitative inputs.

In reference to these research limitations, future research can include the other five public universities in Singapore. Enlarging the scale will yield a more comprehensive understanding of the phenomenon. Face-to-face interviews can be included to gather more qualitative inputs from various stakeholders. Considering the value of such a study, it can be developed into a longitudinal case to examine the (changing) perceptions so that pedagogy can be adjusted appropriately in a timely manner.

8 Conclusion

As expressed by an industry partner, a bachelor's degree is likely to be the highest educational qualification that most students will attain. Hence, the university is likely to be the last opening for students to practice written English and improve their written communication within an academic setting.

As a relatively new university, SIT can benefit from these research findings to review institutional initiatives, and help students improve their English competency for the benefit of their academic and professional advancements.

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