

ACCREDITATION OF PRIOR EXPERIENTIAL LEARNING AS A CATALYST FOR MALAYSIAN HIGHER EDUCATION: EMPIRICAL EVIDENCE ON PERFORMANCE OF STUDENTS

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ABSTRACT

There are growing appeals for recognising prior learning in academic institutions. This paper addresses the relationship between demographics, competency and performance of students who enrol through the Accreditation of Prior Experiential Learning mechanism in Open University Malaysia. A review of literature was conducted to identify empirical gaps. This research contributes in two ways: 1) Adding new theoretical knowledge; and 2) Providing information to stakeholders to aid them in decision-making. One out of four Open University Malaysia students are enrolled through Accreditation of Prior Experiential Learning. Records of students who graduated between 2007 and 2017 were used and the sample size of this research is 2,598. The data was generated from the university's database. The results showed a positive outcome for the first objective where the majority of graduates completed their studies within the time frame of five years. The second objective is to examine the relationship between demographic variables and performance of the students. The relationship between gender ($p < 0.05$), age ($p < 0.05$), cluster ($p < 0.05$), level of learning ($p < 0.05$), learning centre ($p > 0.05$) and performance of Accreditation of Prior Experiential Learning graduates were reported through multiple regression analysis (R square = 0.42). Majority of students (32%) obtained an average Cumulative Grade Point Average between 3.00-3.66. The results clearly proved that Accreditation of Prior Experiential Learning is a catalyst in democratising higher education by giving opportunities to the masses to use their working experience for admission. Six practical implications are given in this paper to promote Accreditation of Prior Experiential Learning.

Keywords: *Accreditation of Prior Experiential Learning, Recognition of Prior Learning, Performance of Students, Open and Distance Learning, Higher Education*

INTRODUCTION

There are growing appeals for prior learning to be recognised by academic institutions. The basic principle of the Accreditation of Prior Experiential Learning (APEL) is that learning is achieved through life or work experience (Betts, 2010). APEL grants individuals the opportunity to undertake higher education by acknowledging their formal, informal and non-formal learning.

To illuminate the uncharted area, the researchers examined different terminologies used to describe APEL in different countries. For instance, APEL is known as Recognition of Prior Learning in South and East Africa, South Asia and Australia; Prior Learning Assessment and Recognition in Canada; Accreditation of Prior Learning in England; and Recognition of Non-formal and Informal Learning in Germany and Spain. In Malaysia, APEL is defined as a systematic process which involves the identification, documentation and assessment of prior experiential learning i.e. knowledge, skills and attitudes to determine the extent to which an individual has achieved the desired learning outcomes, for access to a programme of study and/or award of credits. The Malaysian Qualifications Framework (MQF), through the Malaysian Qualifications Agency (MQA) Act 2007 (Act 679), has a commitment to recognise previous learning wherever possible. The admission requirements are stated below:

- Diploma level: The candidate should be more than 20 years of age in the year of application and possess relevant work experience. The aptitude test will be the main type of assessment.
- Bachelor's level: The candidate should be more than 21 years of age in the year of application and possess relevant work experience. The candidates will be given an aptitude test and will have to submit a portfolio to show their working experience.
- Master's level: The candidate should be more than 30 years of age in the year of application, possess at least STPM / diploma / equivalent (e.g. foundation), with relevant work experience. The candidates have to sit for an aptitude test, submit a portfolio and attend an interview for admission.

PROBLEM STATEMENT AND LITERATURE REVIEW

There have been efforts to address adult learners' expectations (Fox, 2005), feasibility (Cooper & Harris, 2013), challenges and opportunities (Garnett & Cavaye, 2015; Letseka & Pitsoe, 2014) and individuals' well-being (Miguel, Ornelas, & Maroco, 2015) in relation to APEL. Prior studies have examined the implementation of APEL in different environments. The question of validity is no longer probed. A critical open question is whether the performance of the stakeholders from this implementation is meeting the expectations of the stakeholders.

Actual graduation data is used in this paper to prove that APEL is a catalyst and more information on performance of APEL students will be given. The focal literature in this area is synthesised in the current section. According to Andersson, Fejes, and Sandberg (2013), much initiative has been made in research related to APEL and in implementing it in countries like Australia, South Africa and the United States. According to Conrad (2008), the last 20 years have seen no significant increase in the number of adults seeking to pursue their education by formal means. He also stated that over 95% of adult Canadians undertook informal learning projects through their jobs and community work. Recent implementations have led to the proliferation of studies that clearly show the acceptance of APEL in Western countries. Conrad & McGreal (2012) studied 31 institutions, whereby 22 practised recognition of prior learning (71%) while 17 (55%) permitted the transfer of credits. Recognition of prior learning has received considerable critical attention due to high success

rate (82%) in getting academic credit through working experience in the United States as reported by Ryu (2013).

This is a promising line of research because the majority (92%) of respondents in Ryu (2013) support the idea of awarding credits for prior learning. Relating this to the Malaysian environment (Kaprawi, Razzaly, & Wan Ali, 2015), the National Higher Education Strategic Plan was launched in 2007 to transform the higher education sector and among its aims is the recognition of lifelong learning through the Malaysian Qualifications Framework (MQF). There have been attempts to provide knowledge through APEL research papers (Awang, Yaacob, & Mohd Noor, 2014; Jailani et al. 2013) in the Malaysian environment but much of the research up to now has been descriptive in nature. Previous authors have provided substantial discussion on the APEL framework in Malaysia. At the same time, such research has had a rather practical focus on the implementation of APEL, and more research is needed to provide empirical evidence that APEL is a catalyst in the Malaysian higher education system. A more systematic analysis is required to observe the competency level of APEL graduates in terms of their demographic profiles.

A closer look at literature on the relationship between the demographic profile of APEL graduates against their academic performance (Neyt, Omey, Verhaest, & Baert., 2017; Grundy et al., 2017; Blackman, Hall, & Darmawan, 2007), however, reveals a research gap in the Malaysian environment. In Blackman et al. (2007), six latent variables covering 179 APEL students' background, gender, language, age, previous success and status were examined against their cumulative grade point average (CGPA). Grundy et al. (2017) reported little effect of demographic characteristics (age and gender) on academic performance. Other research papers like Neyt et al. (2017) focused on questioning the relationship between work and educational outcomes. Although studies have been conducted by previous authors, the research gap is still insufficiently explored.

RESEARCH OBJECTIVES AND CONTRIBUTIONS

Insights drawn from scholarly literature is supplemented with findings using actual graduation data in the present study. In an attempt to further contribute to this body of knowledge, the researchers will aim to achieve three research objectives.

The first research objective is to analyse the time taken by APEL students to graduate. The second objective is to examine the relationship between demographic variables and performance of APEL students. The final objective is to assess the competency level of APEL students.

According to Garnett & Cavaye (2015), the use of APEL for admission and credit award in academic programmes permits people to have their experiential learning acknowledged as relevant, worthwhile and equivalent to classroom education. Anecdotal institutional evidence has suggested that flexible admission candidates perform equally well as traditional admitted students, but there is still apprehension in the broader academic community on the performance of this group of students. This research contributes in two ways. The first contribution is by developing new theoretical knowledge. This paper will develop an overarching framework to the existing literature (Fox, 2005; Andersson et al., 2013; Ryu, 2013; McGreal, Conrad, Murphy, Witthaus, & Mackintosh, 2014; Garnett & Cavaye, 2015; Neyt et al., 2017; Grundy et al., 2017). In addition, this current work will extend and build upon findings on APEL in the Malaysian environment presented by previous research papers (Awang et al. 2014; Jailani et al. 2013). The second contribution will add to a growing corpus of research, providing more information for decision makers. This is because additional studies to understand the key tenets on APEL graduates are required. This paper addresses the relationship between demographics, competency and performance of APEL

students, which is lacking thus far in scientific literature in Malaysia. Pertinent information can be given to universities to help them in strategising the way forward and making decisions. Decisions can be made with more confidence when supported by facts and figures. The implications of the findings discussed at the end of this paper can supply relevant information to the marketing team.

SIGNIFICANCE OF APEL IN OPEN UNIVERSITY MALAYSIA

In August 1999, a consortium of 11 public universities in the Malaysia set up Open University Malaysia. Subsequently, the Centre for Assessment of Prior Learning (CAPL) was established in 2007; a year after the Malaysian Ministry of Higher Education (MOHE) introduced the Open Entry Admission System in 2006. The APEL mechanism was introduced on 1 January 2016. Currently, the APEL Centre is managing the operations of recognition of prior learning in OUM. The strategic mission of the APEL Centre is to widen access to higher education by granting recognition to individuals with prior experiential learning for the purpose of admission and awarding of credits. The Centre ensures that all its initiatives and practices adhere to the regulations outlined by MQA.

The Centre plays an important role in: 1) Contributing towards APEL brand enhancement; 2) Implementing processes efficiently and effectively; 3) Developing the capacity of assessors through relevant training; 4) Enhancing the assessment instruments used in recognising prior learning and; 5) Conducting research on APEL. Ever since its inception on 1 January 2016, a total of 5,966 students were admitted in OUM as illustrated in Table 1. One out of four students in OUM are from APEL intake. People are using their working experience to gain admission by sitting for an aptitude test, preparing a portfolio and attending an interview under this system. The method of assessment here is consistent with what has been presented by Conrad & McGreal (2012). Among the popular methods to conduct APEL assessments are documentary evidence, portfolio, learning essays, self-assessment and challenge tests. The APEL Centre contributes to the numbers shown in Table 1 below by actively performing branding initiatives to create awareness.

Table 1: Summary of APEL intake in OUM

	Jan-16	May-16	Sept-16	Jan-17	May-17	Sept-17	Jan-18	TOTAL
APEL	972	662	737	1174	667	693	1041	5946
TOTAL	3792	2665	3175	5258	3082	2958	4177	25107
PERCENTAGE	26%	25%	23%	22%	22%	23%	25%	24%

METHODOLOGY AND CONCEPTUAL FRAMEWORK

A series of previous literature were examined and the researchers prepared a meta-analysis to appraise the literature gap. The procedure of meta-analysis is well supported by Gillham (2010) who wrote that qualitative research in nature tends to be descriptive and is very helpful in exploring complexities in the scope of study.

Various methods were used by previous studies related to APEL. Numerous studies (Garnett, & Cavaye, 2015; Miguel et al., 2015; Grundy et al., 2017; Neyt et al., 2017) have used descriptive statistics to report trends and findings on APEL. In-depth qualitative analysis has also been performed by scholars (Letseka & Pitsoe, 2014; McGreal et al., 2014)

in the process of developing evidence in this area. In the Malaysian environment, researchers (Awang et al., 2014; Kaprawi et al., 2013) have also presented quantitative results on APEL. This study will add value to their work.

For this study, the data was generated from OUM's i-CAMPUS system. The i-CAMPUS system is a database for OUM's students which records data on demographics, results, qualifications, working experience, enrolment and graduation. A secondary dataset was extracted from the student information system consisting of records from students who graduated between 2007 and 2017.

Often times, secondary data explored by original research teams are not utilised due to restrictions in time and interest (Cheng & Phillips, 2014). This study will take advantage of the secondary data and utilise what can benefit the readers who are interested to know more about APEL. According to Krejcie and Morgan (1970), a total of 384 samples should be representative for a population of 100,000. A total of 2,598 APEL graduates were examined. This is sufficient according to the criteria set by Krejcie and Morgan (1970) to generalise findings. This study offers some insights by employing descriptive statistics and regression analysis to achieve all the three research objectives. The quantitative analysis for research objectives two and three will be based on the conceptual framework presented in Figure 1.

The conceptual framework developed from previous studies (Neyt et al., 2017; Grundy et al., 2017; Blackman et al., 2007) will be tested in the Malaysian open and distance learning (ODL) environment. Quantitative research paper is able to test theories and allow predictions. Estimates can be provided when the population is large and reports can be condensed using statistics which can lead to precision. These are some of the reasons why the research objectives of this study will be achieved using the quantitative methodology.

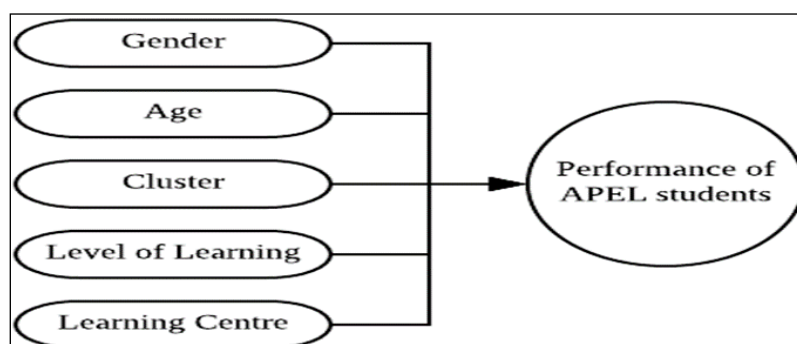


Figure 1: Conceptual Framework

DATA ANALYSIS & RESULTS

A total of 2,598 APEL graduates have been studied to analyse the time taken by APEL students to graduate from OUM. This analysis is important because drawing on what people already have learnt is expected to benefit the society as well as the individuals (Andersson et al., 2013). The normal duration to complete a master's programme is two years, a degree is five years and a diploma can take about three years in a part-time study environment. A total majority of 681 (26.2%) can complete their studies within 4-5 years and 794 (30.6%) are able to graduate within five to six years. Only about 21% of them graduate later than the timeframe. This is probably due to financial reasons, stress, family problems and work commitments. Regression analysis was done to examine the relationship between demographic variables and performance of APEL students. Table 2 displays the summary of results which can be related to the conceptual framework presented in Figure 1. Some descriptive statistics and cross tabulations are given to provide more information.

Table 2: Summary of Findings for the Second Research Objective

No	Hypotheses Statement	p-value	Result
H1	There is a relationship between gender and performance of APEL graduates	0.002	Accepted
H2	There is a relationship between age and performance of APEL graduates	0.001	Accepted
H3	There is a relationship between cluster and performance of APEL graduates	0.001	Accepted
H4	There is a relationship between level of learning and performance of APEL graduates	0.001	Accepted
H5	There is a relationship between learning centre and performance of APEL graduates	0.320	Rejected

The reported R square value of 0.41 as presented in Table 3 indicates the goodness of fit of the regression model, which is closer to the substantial category. The ANOVA significance value ($p < 0.01$) as shown in Table 4 signifies that the result is a valid model based on the suggestion given by Chin (1998). This is one of the most striking results which emerged from the data analysis conducted because the regression model is justified.

Table 5 reports the coefficients which will be used to accept or reject hypothesis in this paper. There is a significant relationship between gender (p -value = 0.002), age (p -value = 0.001), cluster (p -value = 0.001), level of learning (p -value = 0.001) against the dependent variable which is the CGPA of the APEL graduates (measuring performance). Interestingly, there is no relationship reported between learning centres (p -value = 0.320) and performance of APEL students.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.643	0.414	0.412	1.211

Table 4: Analysis of Variance

Model	Sum of Squares	df	Mean Square	F	p-value
1 Regression	2681.064	5	536.213	365.583	0.000
Residual	3801.769	2592	1.467		
Total	6482.833	2597			

Table 5: Coefficients

Model		Unstandardised Coefficients		t	p-value
		B	Std. Error		
1	(Constant)	0.28	0.126	2.176	0.030
	Gender	0.16	0.051	3.057	0.002
	Age	0.05	0.014	3.439	0.001
	Cluster	0.13	0.037	3.475	0.001
	Level of learning	2.33	0.064	36.63	0.001
	Learning centre	-0.002	0.002	-0.994	0.320

Dependent Variable: CGPA

Sig < 0.05

There are more male graduates (51%) compared to female graduates (49%). However, subtle differences can be observed in Table 6, which shows that female graduates perform marginally better than male graduates. This cross tabulation provides additional information to support the acceptance of H1 in this paper. Together, these results provide important insights because majority (32%) of both genders fall within the CGPA category of 3.00-3.66. This finding is in agreement with the work presented by Grundy et al. (2017) which showed female students outperforming male students by a very small margin (difference in the means = 0.07681, $t = 6.213$, $p = .000$).

Table 6: Cross Tabulation for Gender and Performance

CGPA RANGE	MALE		FEMALE		Total	
2.00-2.49	398	30%	334	26%	732	28%
2.50-2.74	222	17%	235	19%	457	18%
2.75-2.99	192	14%	191	15%	383	15%
3.00-3.66	421	32%	410	32%	831	32%
3.67-3.69	20	1%	20	2%	40	2%
3.70-3.74	26	2%	17	1%	43	2%
3.75-4.00	55	4%	57	5%	112	4%
Total	1334		1264		2598	

Table 7: Cross Tabulation for Age and Performance

CGPA	SILENT GEN	BABY BOOMER	GEN X	XENNIALS	GEN Y	Total
2.00-2.49	1	66	197	154	314	732
2.50-2.74	1	26	110	103	217	457
2.75-2.99	2	45	93	78	165	383
3.00-3.66	9	177	335	162	148	831
3.67-3.69	0	14	21	3	2	40
3.70-3.74	1	10	23	4	5	43
3.75-4.00	0	32	66	9	5	112
Total	14	370	845	513	856	2598

The definition of generation has been given by Robinson (2017). The silent generation (1925-1945), baby boomer generation (1946-1964), Generation X (1965-1974), Xennials (1975-1979) and Generation Y (1980-1994) were segregated in the data analysis procedure.

Interestingly, all generations have an average CGPA of 3.00-3.66 except for Gen Y (2.00-2.49). From the summary given in Table 7, it can be concluded that age can somewhat influence performance. A majority of 25 (25-29 years), 158 (20-34 years old), 167 (35-39 years old) scored a GGPA of 2.00-2.49. This differs from graduates who are more than 40 years old. A majority of 176 (40-44 years old), 177 (45-49 years old), 141 (50-54 years old), 65 (55-59 years old) and 106 (above 60 years old) scored an average CGPA of 3.00-3.66. The more the age, the more the nonformal and informal learning. This is very important because students under APEL can use their experiential learning to answer assignments and exam questions. Gen Y should be approached differently. Perhaps interactive teaching methods and also i-lectures, pdf modules and virtual classrooms should be capitalised when delivering knowledge. Learning materials can be shared through social media, internet and mobile applications for this group of people.

There are three main clusters in Open University Malaysia: Cluster of Applied Sciences (CAS), Cluster of Business Management (CBM) and Cluster of Education and Social Sciences (CESS). Generally speaking, APEL graduates come from CAS (23%), CBM (51%) and CESS (26%).

There is a significant relationship between Cluster and performance of APEL graduates. More information is given in Table 8 below.

Table 8: Cross Tabulation for Cluster and Performance

CGPA	CAS	CBM	CESS	TOTAL
2.00-2.49	189	436	107	732
2.50-2.74	114	207	136	457
2.75-2.99	90	163	130	383
3.00-3.66	163	422	246	831
3.67-3.69	6	24	10	40
3.70-3.74	9	19	15	43
3.75-4.00	18	51	43	112
TOTAL	589	1322	687	2598

Table 9: Cross Tabulation for Level of Learning and Performance

RANGE CGPA	Postgraduate		Undergraduate		Grand Total	
	frequent	percent (%)	frequent	percent (%)	frequent	percent (%)
2.00 - 2.49			732	36.20	732	28.18
2.50 - 2.74			457	22.60	457	17.59
2.75 - 2.99			383	18.94	383	14.74
3.00 - 3.66	402	69.79	429	21.22	831	31.99
3.67 - 3.69	38	6.60	2	0.10	40	1.54
3.70 - 3.74	36	6.25	7	0.35	43	1.66
3.75 - 4.00	100	17.36	12	0.59	112	4.31
	576	100.00	2022	100.00	2598	100.00

Further analysis revealed that 59% of APEL graduates are from the seven top selling programmes in OUM: 1) Bachelor of Islamic Studies (181), Master in Business Administration (203), Bachelor of Human Resource Management (258), Bachelor in Marketing (315), Bachelor of Business Administration (339), Bachelor of Health and Safety Management (111) and Bachelor of Childhood Education (116).

APEL graduates who had enrolled in postgraduate programmes performed better than undergraduates as shown in the cross tabulation in Table 9. The term “undergraduate” refers to students pursuing diploma and degree programmes in OUM whereas “postgraduate” refers to students who are doing their master’s degree and doctorate in OUM. In general, a bachelor’s degree student has to complete 120 credit hours while a master’s student has to complete 40 credit hours and maintain a CGPA of more than 3.00 in order to graduate. Undergraduate students are evaluated through online assessments, assignments and projects as well as multiple choice question examinations and essay examinations. On the other hand, master’s students have to submit assignments, sit for examinations, conduct projects and write a thesis. Academic growth alone is not sufficient to survive in this competitive world, as the ability to relate practice to theory is needed with a touch of good soft skills, reading habits and management of anxiety. These come with experience, which is the probable reason postgraduate students perform marginally better than undergraduate students.

No relationship between learning centre and APEL graduate performance is reported ($p > 0.05$), which means it does not make much of a difference where they study. A brief descriptive analysis showed that the Bangi, Kuala Lumpur, Kota Kinabalu, Shah Alam and Kuching Learning Centres produced most of the APEL graduates. This is probably because OUM is highly capitalising on technology in delivering knowledge beyond space and time. Technology

becomes essential and provides students with wider access to learning materials regardless of where they study. This is why learning centre does not affect academic performance. The final objective of this paper is to examine the competency level of APEL graduates and the performance of the 2,598 students as shown in Table 10. The majority of the students (32%) obtained an average CGPA of 3.00 to 3.66, which indicated that they were doing well in their academic journey at OUM.

Table 10: Competency level of APEL Graduates

CGPA	Frequency	Percent
2.00-2.49	732	28.2
2.50-2.74	457	17.6
2.75-2.99	383	14.7
3.00-3.66	831	32
3.67-3.69	40	1.5
3.70-3.74	43	1.7
3.75-4.00	112	4.3
Total	2598	100

IMPLICATIONS

Six implications can be made from this paper based on the findings reported:

1. Firstly, OUM should focus on creating awareness about the opportunities APEL can provide to both genders and also, people from all corners of Malaysia. This can be done by leveraging on the Internet, social media and digital marketing. Success stories should be shared to motivate the masses to pursue higher education.
2. To ensure shorter duration of study, the mechanism for awarding credits through APEL C must be in place. Students can be exempted from having to take some courses because they have vast related experience. A proper assessment mechanism must be put in place to achieve this.
3. Most students who enrol in OUM through APEL and are able to reach graduation are from the Gen X, Xennials and Gen Y categories. They are able to use their experiences to help them in their academic journey. They are the target market to focus on.
4. As explained in the findings, 59% of APEL graduates came from the seven top selling programmes at OUM: 1) Bachelor of Islamic Studies (181), Master in Business Administration (203), Bachelor of Human Resource Management (258), Bachelor in Marketing (315), Bachelor of Business Administration (339), Bachelor of Health and Safety Management (111) and Bachelor of Childhood Education (116). Students in these programmes can relate theory to practice in an effective manner. Institutions that provide the APEL mechanism can capitalise on this result. More branding initiatives need to be done by institutions to ensure the success of APEL graduates in other programmes.
5. A solid sustenance support system should be created for APEL students so that they are confident and satisfied with their studies. A resource centre can be created in the library to show examples of good portfolios, and share good books on how to improve aptitude and how to win in interviews. These are basically the assessment methods in taking APEL students. More knowledge can be shared through video lectures and the e-tutor mechanism in the University's system to ensure they get optimal support.
6. Institutions must have a good relationship with the governing bodies by ensuring compliance to all policies and procedures.

CONCLUSION

APEL can be a catalyst in Malaysian higher education to provide people with more opportunities to learn and progress. The performance of students who enrol via APEL is exceptionally well as could be seen from the evidence furnished. The knowledge in this area could be expanded and more publications produced to create awareness of APEL. Quantitative analysis can be performed by future researchers to study the reasons some graduates are able to finish on time while others delay their graduation. Future researchers can also study human behaviour in this area. What are the main characteristics or personality differences between those who graduate with a high CGPA compared to those who obtain a low CGPA. The differences between students who enrol via APEL and normal entry can be deliberated on by providing more empirical evidence. These findings will be very useful in conducting branding activities. The marketing department can highlight and bring this matter to the spotlight so that people understand what is expected in their academic journey. This will reduce the attrition rate of universities and help candidates be more prepared before undertaking a programme. This study can be replicated using different analysis methods. Perhaps, qualitative content analysis can be reported by interviewing successful APEL graduates to understand their efforts and results. The findings can be related to policies on recognition of prior learning to enrich knowledge in this area. More research on APEL must be conducted to embrace the democratisation of education.

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