

Operationalising Accreditation of Prior Experiential Learning for Credit Awards: A Quantitative Perspective from Malaysia

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Abstract

Accreditation of Prior Experiential Learning can be the catalyst for boosting income and propelling productivity. This process enables knowledge and experiences that people acquire outside of formal education to be assessed and recognised, thereby granting them the opportunity to enrol in courses at open and distance learning institutions like Open University Malaysia. The main objective of this paper is to provide descriptive information on the operationalisation of credit awards and to examine the factors affecting the operationalisation of credit awards in open and distance learning institutions. Data related to applications, eligibility and results of 1,721 students over five years were summarised in this paper. A review was conducted on previous literature, policies and documents from Malaysian Qualifications Agency to create an instrument. A total of 203 usable questionnaires were obtained from Open University Malaysia using phone interview methodology. Based on the mean analysis performed, it can be summarised that the students put much emphasis on saving time and cost via credit transfer because most of the adult learners intend to graduate faster. An exploratory factor analysis procedure was conducted using Principal Component with Varimax Rotation on the 20 items that measured operationalisation of APEL for credit awards (Kaiser Mayer Olkin = 0.94; Total Variance Explained = 70%). Service Quality (Alpha = 0.94), Management System (Alpha = 0.89) and Support system (Alpha = 0.87) were the three factors that were extracted from the exploratory factor analysis procedure and they were all found reliable to claim a model fit. In terms of originality, this is a preliminary study on credit awards in Malaysia that has furnished empirical data. It can be concluded that this mechanism serves as a social justice tool, providing lifelong learning opportunities to adult learners.

Keywords: accreditation of prior experiential learning, credit awards, management system, open and distance learning, service quality and support services

1. Introduction

There is a growing body of literature that recognises the importance of Accreditation of Prior Experiential Learning (APEL) in Malaysia, which is also known as Recognition of Prior Learning (RPL) in some other countries. In the operationalisation of APEL in Malaysia, candidates are given the opportunity to obtain admission (APEL.A) as well as to attain credit awards (APEL.C) in higher education institutions, by capitalising on their working experience. This work will generate fresh insight into APEL.C by showing empirical evidence from the Malaysian environment. The Malaysian Qualifications Agency (MQA) defines APEL.C as the award of credits for prior experiential learning towards a course in an accredited programme of higher education (Malaysian Qualifications Agency [MQA], 2020). Knowledge and skills acquired through informal and non-formal learning are used as the

basis for granting credits. The importance of recognition, validation and accreditation of non-formal and informal learning has been actively discussed since the UNESCO General Conference in 2005. This is clearly highlighted in the review of English (2015). Lifelong learning spirit should serve various social, policy and economic purposes. This view is supported by Moboye (2011), who writes that the concept of Recognition of Prior Learning (RPL) can be seen as a mechanism that can contribute to social justice. Prior Learning Assessment and Recognition (PLAR), as it is called in Canada, is able to assist various groups for certification reasons (English, 2015). The older workers, human resource practitioners, counselling practitioners and members of marginalised groups have benefited from this social justice mechanism. In Austria, recognition of non-formal and informal learning can increase the integration of marginalised groups by providing them a "second chance". Interestingly, this process of recognition can help influence people's awareness of their knowledge and competences as well as enhance their careers through education (Federal Ministry of Education, Arts and Culture, 2011). However, important factors leading to the proper implementation of APEL.C remain speculative. Therefore, this study makes a major contribution to the body of knowledge by demonstrating how social justice can be achieved through APEL.C, by furnishing some quantitative evidence, such as descriptive statistics and the results of exploratory factor analysis (EFA).

Thus, the four main justifications given by the MQA (2020) to implement APEL.C in Malaysia are to:

- Provide recognition for learning acquired from non-formal and informal sources;
- Reduce the duplication of learning, or learning of the similar content;
- Encourage adult participation higher education by recognising their prior experiential learning in the forms of credit awarded; and
- Potentially reduce the time and cost of completing a study programme.

With an emergent emphasis given on lifelong learning, the operationalisation of credit awards for recognising experiential learning becomes an imperative factor to increase student satisfaction in higher education institutions (HEI). According to MQA (2020), the maximum percentage of credit transfer through APEL.C is 30% of the total graduating credits for a specific programme of study. This is in addition to the credit transfer provision of the existing formal credit transfer policy. As for the implementation of credit transfer at Open University Malaysia (OUM), students are encouraged to apply for APEL.C in the first year of study. The method of implementing the operations can be extrapolated to all the students. Courses offered for APEL.C are mostly first and second-year courses. Students who achieve satisfactory results are granted credit awards. On the other hand, those whose results are not satisfactory shall have to register for the same courses and attend classes.

In the implementation of APEL.C, HEIs shall adhere to all of the APEL.C general policies as outlined in MQA (2020). Here are some of the main highlights:

- The APEL.C provision is applicable to learners registered at any HEI, regardless of the mode of entry; whether through the conventional or APEL.A route;
- APEL.C encompasses the assessment of prior experiential learning for the purpose of credit award;
- HEIs can implement APEL.C at their respective institutions ONLY after obtaining approval from MQA. HEIs which intend to implement APEL.C must comply with the MQA APEL.C policies;
- APEL.C will be implemented for all areas and levels of qualifications in the Malaysian Qualifications
 Framework (MQF). For postgraduate level of study, the credit award is limited only to the courses in
 programmes conducted via coursework and mixed mode;
- APEL.C is confined to courses in programmes that have obtained at least provisional accreditation from MQA; and
- Courses that form part of the programme structure under professional bodies may be considered for APEL.C, subject to acceptance by relevant professional bodies. HEIs shall be responsible for securing such approval.

2. Focal Literature

Hargreaves (2006) stated that little quantitative analysis is found in studies related to APEL. Misko et al. (2007) in concurring, added that this is presumably associated with a lack of quantitative and longitudinal research, while Bateman (2003) noted there is possibly a lack of research on macro influences on RPL. Previous studies on APEL carried out in Malaysia (Kek et al., 2011; Jailani et al., 2013) have mainly focused on qualitative design. The paper of Kek et al. (2011) and Jailani et al. (2013) adopted a qualitative method, where document analysis was done. Ahmad Izanee et al. (2014) showed comparative analysis on persistency of APEL.A learners in OUM. Thus, more quantitative evidence is needed in the area of APEL.C to narrow the literature gap, especially in ODL institutions like OUM, to show the progression from implementation of APEL.A to APEL.C. This is also because the factors affecting the operationalisation of APEL.C have not been closely examined.

In order to enhance the economy several countries have adopted APEL since it is regarded as a win-win policy for all stakeholders: adults seeking RPL, providers offering RPL, and employers needing certified human resources (Singh & Ehlers, 2019). Similarly, the strategic mission of the APEL Centre in OUM is to widen access to higher education by providing a pathway for formal recognition of the prior experiential learning of individuals for the purpose of admission and awarding of credits. All of the APEL Centre's initiatives and practices comply with the regulations outlined by MQA (2020). The centre plays an important part 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. Figure 1 below presents the information on number of applications, eligibility and results of students who were involved in the APEL.C process in the last five years.

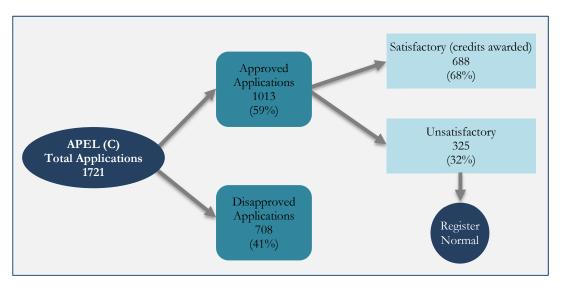


Figure 1. Applications, Eligibility and Results (2016–2020)

Figure 1 offers some important insights on the implementation of APEL.C in OUM. A total of 59% of the applicants were able to display that they have experiential learning and they were given the opportunity to advance to the assessment stage, out of which 68% of them were granted credit awards for various courses. This concomitantly promotes inclusive education and contributes to strengthening the lifelong learning initiatives in Malaysia. The data above aligns neatly with the mission of UNESCO in terms of attaining its sustainable development goals. Although there is no agreement among researchers on how quality should be defined (Van Kleef, 2014), social justice can still somewhat be obtained through the implementation of APEL.C. However, there are still some challenges that must be observed careful. Gonzales and Tabarak (2016) clearly warned that although institutional policies are in place, most institutions are still faced with fear and a lack of knowledge about RPL. Correspondingly, interviewees in their study furnished evidence on fears regarding assessment of experiential learning. According to Roy

and Marsafawy (2021), the basic idea behind RPL is to acknowledge the experiential learning experience in informal and non-formal contexts, while obtaining knowledge and skills reflecting constructivist learning, and permitting people without traditional formal qualifications to access higher education or vocational training.

In terms of operationalisation of the process flow, firstly, students are required to make an application and undertake self-assessment, as suggested by MQA (2020). Self-assessment is the evaluation process of oneself on his or her readiness to take part in the APEL.C process. Here, they will be linked to an Advisor who will provide them with career guidance. The principles of APEL will also be elaborated upon by the Advisor, to ensure the students know that their formal, informal and nonformal learning throughout their life can be used in this process. The main motivation of learners to claim for credit award is to save time as well as save cost in their academic journey. If their application is permitted, they will have to pay the APEL.C process fee and proceed to the assessment stage. Otherwise, instantaneous feedback will be given if they are not eligible. The students must be clear about the course learning outcomes (CLO) because the assessment conducted will be based on the achievement of the CLOs for that particular course they are seeking credits for. Moreover, students must also be aware that all evidence furnished under the APEL.C process must be valid, reliable and authentic (MQA, 2020). This information has been all provided on the website along with the guidelines prepared by APEL Centre, and they are easy to comprehend. Challenge test and portfolio submission are two main assessment methods that are available for APEL.C currently, as recommended in MQA (2020). Considering the reality, we are facing now, portfolio submission seems to be the best choice to minimise human contact during the pandemic. Once the documents are submitted to prove candidates experiential learning in the subject, the APEL Centre works to communicate with the faculty for the grading process. Assessors proceed to grade the APEL portfolios. After that, results will be processed. Endorsement by the University Examination Committee will take place and hence, credits will be awarded to the student. During the whole process, the APEL Centre is required by the institution to demonstrate reliability in providing quality services as well as showing responsiveness and empathy to the needs of the students. The APEL Centre must be able to integrate quality in the whole process of work, to the benefit of all stakeholders in the process. From time to time, it is important to perform internal quality assurance that is justified through a formal audit exercise. This continually measures the quality of all activities, informing the implementation of any necessary corrective action until the desired quality is achieved to satisfy all types of stakeholders within the APEL process.

2.1. Underpinning Theory

A range of theoretical perspectives on quality in RPL are beginning to emerge (Van Kleef, 2014). The Andragogy Theory posited by Knowles (1984) explains the important elements for adult learning. Knowles (1984) stated that adults are driven by self-concept, making them partial to being independent learners. Adults have working experience, which can come in the form of formal, informal and nonformal learning, and these are consistent with the learning methods being practised in OUM. Learning that can be attained on a daily basis through informal and non-formal ways is not confined to a classroom. It can also be very unstructured. This is the elucidation of the philosophy that is practiced in OUM. In terms of managing barriers to education, adult learners are presumed to perform better than fresh school leavers as adults are able to apply the knowledge they learn immediately in their working environment. This gives them a competitive edge in the labour market as well as in the classroom.

The purpose of this study is to:

- Provide descriptive information on the operationalisation of APEL.C in an open and distance learning (ODL) institution; and
- Explore the factors affecting the operationalisation of APEL.C in an ODL institution, through an EFA that will influence future research.

3. Research Design and Method

There is a need to ensure effectiveness of the APEL.C management system to preserve quality. To that end, the reviews and highlights from MQA (2020) were used to develop the initial research questionnaire. A five-point Likert scale was adopted and a total of twenty (20) items were used to measure factors affecting the APEL.C implementation in OUM. Later, content validity was performed in a focus group discussion among members of the APEL department. This resulted in some changes being made to the preliminary instrument in order to enhance comprehensibility. The survey questionnaire was then subjected to further fine-tuning before the finalised questionnaire was prepared to be administered. The questionnaire was directed to all the candidates who applied for APEL credits from 2016 to 2020 in OUM, out of which 203 responded. Gorsuch (1983) suggested that a sample of at least 100 subjects is sufficient to perform a factor analysis. With the help of a research assistant, telephone data collection was undertaken to improve the response rate. Nonresponse was due to change of phone numbers by the students. A structured survey questionnaire technique using a five-point Likert Scale ranging from '1' (strongly disagree) to '5' (strongly agree) was adopted. To moderate against judgment error and minimise the presence of bias, the data was subjected to descriptive, normality and reliability analysis. The indices will be reported in the next section of this paper. Nevertheless, the sample size is sufficient, considering the novelty of this work.

4. Research Findings and Discussions

4.1. Descriptive information on the operationalisation of APEL.C in OUM

This section will discuss the first objective of this paper, which is to provide descriptive information on the operationalisation of APEL.C in an ODL institution. The descriptive test of the survey instrument in this exploration is critically evaluated, as presented in Table 1. As reported earlier in this paper, experimental data on APEL.C is scarce. Due to this potential limitation, the analysis presented in Table 3 will be complemented by data from previous studies (by Kek et al., 2011; Jailani et al., 2013; Ahmad Izanee et al., 2014) conducted in the Malaysian environment. Ahmad Izanee et al. (2014) focused on 1) reregistration rate of APEL learners, 2) students' capability in assignment submission, 3) attendance rates of students, and 4) CGPA of students. The current study focuses on APEL.C and will somewhat build upon the findings of previous studies conducted on APEL in Malaysia.

In the data cleaning process, skewness scores were taken into consideration to justify normality of the usable data. Measurements for most of the indices were within the recommended ranges (Skewness -2 to +2) as given by Lei and Lomax (2005). This is displayed in Table 1.

Table 1. Reliability and Normality of the Research Instrument

No	Statement	Mean	Std. Deviation	Skewness
A1	I am able to understand the strategic vision of APEL.	4.17	0.78022	-0.881
A2	I am able to view the information about APEL.C (e.g information in website).	4.19	0.74091	-0.831
А3	I have information on the course(s) that are offered under APEL.C in the system.	4.12	0.87076	-1.050
A4	I know how to use the management system for APEL.C application.	4.18	0.80104	-0.915
A5	I perceive the guidelines that are prepared by the Centre are easy to comprehend.	4.04	0.88353	-0.773
A6	I appreciate the career guidance counselling given to me.	4.05	0.93450	-1.064
A7	I am able to recognize the APEL.C principles elaborated by the Advisor.	3.99	0.93065	-0.864

No	Statement	Mean	Std. Deviation	Skewness
A8	I know that I can save time via APEL.C process and graduate faster if successful.	4.57	0.74413	-2.014
A9	I believe that I can save cost via APEL.C process if successful.	4.40	0.85850	-1.595
A10	I notice that the application process for APEL.C is well structured.	4.11	0.90547	-0.863
A11	I am clear about the self-assessment process.	4.07	0.84400	-0.840
A12	I am able to identify the course learning outcomes that have to be achieved to obtain the credit awards.	4.22	0.77862	-0.908
A13	I realize that all evidences furnished under the APEL.C process must be valid, reliable and authentic.	4.40	0.72739	-1.103
A14	I am aware that there are two assessment methods available for APEL.C (challenge test and portfolio).	4.19	0.85274	-1.047
A15	I have all the details on the assessment format (the way it will be conducted under both methods).	3.95	0.93742	-0.775
A16	I am provided immediate feedback whether I am eligible or not for the APEL.C process.	3.86	1.04089	-0.934
A17	I see APEL Centre as being reliable in providing quality services during the process.	4.12	0.87857	-1.128
A18	I acknowledge that the staff of APEL Centre are responsive to my needs during the process.	4.11	0.88551	-0.915
A19	I can see that the staff of APEL Centre are able to show empathy to my needs during the process.	4.02	0.95420	-0.868
A20	I perceive APEL Centre is able to integrate quality assurance in their process of work.	4.13	0.88275	-1.049

To summarise the mean findings, the students put much emphasis on saving time and cost via credit transfer because most of the adult learners intend to graduate faster. Despite the benefit it offers, there are still some challenges that can be observed in the implementation and it is aligned with the findings of Shaketange (2018). Primarily, there is a lack of competency among the assessors on how to validate the competencies of the students. Secondly is there is a negative preconceived idea about APEL. Thirdly, the findings show that there is difficulty in fitting APEL into faculty programmes, which is an operational issue. Finally, candidates do not know how to compile a portfolio despite getting all the information. Proper capacity building exercise must be conducted from time to time by APEL Centres to address these pertinent issues. As seen in the findings, the Centre must provide quality services, show empathy and be responsive to the needs of the students in the process of democratising education through APEL.

As stated earlier, APEL.C is about avoiding duplication of learning. As a consequence, this can be beneficial to the workforce. Moreover, students also realise that all evidences furnished by them must be valid, reliable and authentic. The Knowles Andragogy Theory (Knowles, 1984) specified that adults are driven by self-concept which means that they are independent learners. Thus, students will take relevant actions to get their experiential learning quantified. One way to do this is to certify their documents prior to online submission during pandemic. The students must also declare referee names so that the assessor is able to counter check on the credibility of the evidence given. Students need to approach individuals or professional acquaintances that are willing to verify or provide additional information about them. The students must not have any family connections with the referee.

Adult learning concepts are employed and judgements are based on evidence of learning which are relevant to the expected course outcomes. Apart from that, the assessors must ensure that established assessment principles are employed when assessing prior experiential learning for awarding credits. For this reason, APEL assessors needs proper training and the ODL institution implementing APEL must be aggressive in capacity building work. When implementing APEL.C in terms of processing, assessing and servicing, the candidates must be able to view the information about APEL.C (eg: information in website). One of the main evidences that can be given to prove the viability of APEL mechanism is to

share the statistical findings of Van Kleef (2014). Researchers have examined a sample of 62,000 students in 48 US universities who have attended several forms of assessment methods. It was found that students who had undertaken RPL had higher graduation rates as compared to normal entry students (56% over 21%). This is an evidence that the APEL/RPL mechanism can thrive in the real world. However, the lack of information and public awareness is one of the biggest barriers, which are also faced by most European countries as well (Grażyna et. al., 2013).

4.2. Factors affecting the operationalisation of APEL.C in OUM

The second research objective is to explore the factors affecting the operationalisation of APEL.C in an ODL institution, through an exploratory factor analysis (EFA) that could inform future research. Factor analysis is known to be a multivariate statistical procedure for the appraisal of the instrument in this paper. Factor analysis is commonly used in various areas of study, e.g., social sciences, economics, geography (Yong & Pearce, 2013), psychology and education, as a result of information technology advances. Hair et al. (2014) concluded that the major purpose of factor analysis is to establish the fundamental structure of the variables in the analysis. As displayed in Table 2, the Kaiser-Meyer-Olkin (KMO) value in this analysis is 0.94, which is greater than the recommended threshold value of 0.60 (Pallant, 2016). This designates that the sample size in this study is adequate and the data is suitable for this type of analysis.

In real-world implementation of APEL.C, as with any programme, commitment from top management is needed to ensure there is a good management system. This ensures that processes and procedures are conducted fairly and in the most flexible manner, accommodating to the needs of adults. Secondly, institutions must find a way to integrate quality assurance in the support services. This is so that all concerns related to assessment and evidence that needs to be furnished in the process are clarified in the beginning. Along that line, support from advisors, moderators and assessors have to be ascertained, without which APEL will not be a success. The research findings in this paper will be presented in the next page, using Exploratory Factor Analysis followed by justification that the instrument used is valid and reliable.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure	0.94	
Bartlett's Test of Sphericity	Approx. Chi-Square	3506.725
	df	190
	Sig.	0.000

The EFA procedure was conducted using Principal Component Analysis (PCA) with Varimax Rotation on the 20 items that measure the main construct, which is operationalisation of APEL for credit awards. Varimax rotation results for the 20 items are reported in Table 3, where there are three constructs extracted with the eigenvalues between 1.119 and 11.445. The results also showed that the total variance explained is 70%, which is more than the minimum thresholds of 60% to claim a valid model (Tiny Azleen et al., 2018). Examination of the items indicated that there were three main common themes, namely service quality (9 items), management system (6 items) and support system (5 items). The final EFA results for operationalisation of APEL credit award construct with 20 items are presented in Table 4.

Table 3. Total Variance Explained

Commonant	Initial Eigenvalues			
Component	Total	% of Variance	Cumulative %	
1	11.445	57.227	57	
2	1.444	7.218	64	
3	1.119	5.594	70	

Table 4. Rotated Component Matrix

Factor	Variables	Component		
Name		1	2	3
	A18: I acknowledge that the staff of APEL Centre are responsive to my needs during the process.	0.830		
	A19: I can see that the staff of APEL Centre are able to show empathy to my needs during the process.	0.808		
	A17: I see APEL Centre as being reliable in providing quality services during the process.	0.734		
ality	A20: I perceive APEL Centre is able to integrate quality assurance in their process of work.	0.732		
Service Quality	A10: I notice that the application process for APEL.C is well structured.	0.705		
Servic	A16: I am provided immediate feedback whether I am eligible or not for the APEL.C process.	0.699		
	A11: I am clear about the self-assessment process.	0.646		
	A6: I appreciate the career guidance counselling given to me.	0.644		
	A15: I have all the details on the assessment format (the way it will be conducted under both methods).	0.544		
	A2: I am able to view the information about APEL.C (eg: information in website).		0.795	
stem	A7: I am able to recognize the APEL.C principles elaborated by the Advisor.		0.666	
nt Sys	A1: I understand that the strategic vision of APEL.		0.666	
Management System	A3: I have information on the course(s) that are offered under APEL.C in the system.		0.638	
Mana	A4: I know how to use the management system for APEL.C application.		0.620	
	A5: I perceive the guidelines that are prepared by the Centre are easy to comprehend.		0.610	
	A13: I realize that all evidences furnished under the APEL.C process must be valid, reliable and authentic			0.780
Support System	A8: I know that I can save time via APEL.C process and graduate faster if successful.			0.692
Su	A9: I believe that I can save cost via APEL.C process if successful.			0.664
ort	A12: I am able to identify the course learning outcomes that have to be achieved to obtain the credit awards.			0.599
Support System	A14: I am aware that there are two assessment methods available for APEL.C (challenge test and portfolio).			0.590

4.3. Reliability Test

Reliability statistics are reported in Table 5 to substantiate the internal consistency of the measurement. The measures for reliability in this study are above 0.80, as recommended by Zikmund et al. (2010). Collectively observing the normality, validity and reliability elements, the aforementioned indices suggest that the construct in this study is credible.

Table 5. Reliability Statistics

Construct	No of Items	Cronbach's Alpha
Service Quality	9	0.94
Management System	6	0.89
Support System	5	0.87

5. Research Contributions

APEL as a concept can be a mechanism to remove barriers to higher education, thereby contributing to social justice. Recognition by others helps students to develop their self-esteem, which in turn is necessary for the development of a healthy labour market. As stated earlier in this paper, there is a lack of current statistical information on RPL research, which is presumably associated with a lack of quantitative research (Bateman, 2003; Misko et al., 2007). Quantitative design was used in this present study to help bridge this research gap. The main focus of this paper is to communicate to the readers how the operationalisation of APEL.C is done in Malaysia by providing some descriptive statistics. The other objective is to examine the factors affecting the operationalisation of APEL.C in ODL institution by exploring the constructs through a systematic EFA that may have an impact on future research.

There are five main aspects of research contributions that can be highlighted in this section:

- i. This is one of the preliminary studies on APEL.C in Malaysia that has furnished empirical data from students with a representative sample size (n = 203). As such, it makes a major contribution to the practice of ODL in Malaysian universities. Increasing the generalisability of research findings through a more appropriate sampling procedure is also a methodological contribution, narrowing the research gaps and creating new avenues for further research.
- ii. Undertaking rigorous research procedures to explore the measurement of APEL.C in Malaysia is an original aspect of this study. Empirical evidence provided through the EFA can contribute in the decision-making process of other higher education providers in Malaysia who are keen to obtain an APEL.C license. Mean analysis was performed on the 20 items to show their importance and ranking. Other higher education providers should have an idea on how to be ready in terms of ensuring service quality, providing support system and getting management system ready for operationalisation of APEL.C before approaching MQA.
- iii. Successful implementation of APEL.C will have a macro effect that ultimately supports the purpose of UNESCO in achieving sustainable development goals by working towards supporting quality and inclusive education. The APEL mechanism can be capitalised upon as a transformative agent to reduce social inequality by encouraging more people to gain access and credit awards in higher education. In the long run, students' mobility problems can also be reduced if the APEL.C mechanism functions alongside Micro-credentials and a National Credit Bank System.
- iv. The concept of the 'learning society' originated in the 1960s and 1970s, during a period of intense social change and economic growth. The focus back then was on improving the employment rate with the aim of improving life conditions. Educational institutions were required to operate as a comprehensive and integral system intended to meet the lifelong educational goals to everyone. Growth can be achieved if students are made aware of their purpose in pursuing lifelong education opportunities. Clearly written guidelines on the APEL.C process flow as described in this paper can help in this matter.
- v. APEL could be a catalyst for boosting income and propelling productivity. Successfully going through the APEL.C process can provide value in terms of instilling self-confidence into an adult leaner, especially when they have gone through appropriate assessment methods (challenge test / portfolio submission). This in turn leads to the development of a smart, sustainable and inclusive economy, delivering high levels of employment, productivity and social cohesion.

As stated by Jailani et al. (2013), more joint carnivals must be held between different agencies to make APEL workable. Furthermore, social media (e.g., Facebook, Twitter, Instagram) must also be used massively to reach different people to create more awareness about APEL. ODL institutions must work towards improving recordkeeping systems as there will be a significant amount of documentation involved in the process. Commitment from top management, preparation of strategic papers, availability of robust infrastructure is also required for a successful implementation of the APEL system in any ODL institution. Future research in education, particularly in the areas of APEL, ODL and lifelong learning, may use the validated instrument from this study and help strengthen the framework for lifelong education. Perhaps, more analysis like regression and SEM can be performed with moderators and mediators to understand the phenomena better. Meanwhile, factor mixture models and multilevel factor

models offer exciting new research possibilities to researchers working within the realm of CFA and SEM. These developments perpetuate the hallmarks of CFA/SEM as an exceptionally versatile analytic framework for addressing a wide array of questions in the social, education and behavioural sciences.

6. Conclusion

APEL can be the catalyst for boosting income and driving productivity. Thus, service quality provided by universities becomes crucial, as found by the EFA process used in this study. Through this research, it is established that APEL facilitates non-conventional learners to obtain opportunities by getting their nonformal and informal experience recognised. This improves their employability, mobility and selfesteem in the long run. Development of RPL has its origins from social and economic policies. Therefore, it is vital for higher education to place an emphasis on having a good management and support system. It was also discussed in this paper that students put much emphasis on saving time and cost via credit transfer because most adult learners intend to graduate faster, as revealed by the descriptive analysis conducted to achieve the first research objective. This is because APEL eliminates unnecessary repetition and duplication of material already familiar to the student, ultimately enhancing learners' perceptions and understanding of learning as a lifelong process. Equally important, APEL also promotes the culture of lifelong learning, which is also the agenda of the Malaysian Qualifications Framework. Moreover, this paper provides some empirical evidence through statistical procedures that can facilitate other institutions who are looking to venture into APEL. Ultimately, all stakeholders should work together and collaborate so that social inclusion, active citizenship and human resource development of learners can increase competitiveness of APEL graduates. One major problem in the field of APEL is that valid and reliable data on the application and take-up of validation of non-formal and informal learning remains scarce (Cedefop, 2019). Although some countries or learning providers do collect data relating specifically to validation, others do not distinguish between learners who have benefited from validation and those who have pursued a formal route to a qualification or a place on a course. That is where this present study comes in, to narrow the empirical gap, fulfilling the second research objective.

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