Implementation and challenges of accreditation of prior experiential learning: admissions (APEL-A)

Implementation and challenges of APEL-A

1

Received 29 January 2019 Revised 22 April 2019 Accepted 24 April 2019

The assessors' perspective

Li Hsien Ooi and Arathai Din Eak School of Education, Languages and Communications, Wawasan Open University, George Town, Malaysia

Abstract

Purpose – The purpose of this paper is to highlight how accreditation of prior experiential learning (APEL) is implemented, the challenges faced by the APEL assessors while assessing candidates as well as to suggest recommendations for improving the APEL process.

Design/methodology/approach – This paper is written based on the critical reflection of two accreditation of prior experiential learning: admissions (APEL-A) assessors appointed from a Malaysian Qualifications Agency approved assessment centre. This process would add depth and breadth to the study based on the assessor's experience.

Findings – The study identified five challenges in the implementation of APEL-A. They are limited literature and records of the existing practices, conceptualisation of the APEL process, complicated and time-consuming APEL process, standard of acceptance vary according to discipline and lack of continuous training for APEL assessors. The four recommendations for improvements are as follows: the need for transparent and clear guidelines, ensuring consistency in practices and fairness to those from conventional learning, integrating APEL as part of the institution's academic policy and providing continuous training for all APEL assessors. Originality/value – Until now, not much research has been done regarding its implementation in Malaysia. The number of learners enrolled through this form of assessment may be low but growing. The feedback on the implementation of the APEL-A assessment process would be greatly beneficial to the stakeholders involved in improving its implementation process. The highlighted challenges faced as well as the recommendations put forth may also be useful for the continuous improvement of the APEL-A assessment process. Relevant stakeholders would benefit from this study.

Keywords Malaysian Qualifications Agency, Accreditation of prior experiential learning, Open and distance education

Paper type Research paper

1. Introduction

The population of Malaysia roughly comprises 68.6 per cent ethnic Bumiputera (sons of the soil that includes Malays and the Malaysian Indigenous people), 23.4 per cent Chinese, 7 per cent Indian and 1 per cent others (Department of Statistics Malaysia, 2015). Within this multiracial, multicultural and multilingual composition, Malaysia aims to develop, especially in its human capital, to achieve Vision 2020 that would allow Malaysia to attain advanced nation status. In this final leg of Malaysia's journey, one of the six strategic thrusts deliberated in the 11th Malaysia Plan (Economic Planning Unit, 2015) is to accelerate the development of human capital for an advanced nation through lifelong learning. To increase access to higher education to encourage lifelong learning, the Malaysian Government began by establishing private higher education institutions (HEIs) before

© Li Hsien Ooi and Arathai Din Eak. Published in *Asian Association of Open Universities Journal*. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

Asian Association of Open Universities Journal Vol. 14 No. 1, 2019 pp. 1-11 Emerald Publishing Limited 241446994 DOI 10.1108/AAOUJ-01-2019-0003 introducing the Open Distance Learning (ODL) modes of study. The latest measure was the introduction of the newly approved alternative assessment by the Malaysian Ministry of Education and the Malaysian Qualifications Agency (MQA) known as accreditation of prior experiential learning (APEL) that allows learners to leverage on their working experience or prior experiential experience to enrol into tertiary education. This allows more learners from diverse backgrounds, conventional or otherwise, to enter into institutions of higher learning for professional development. Wawasan Open University (WOU) is one of National APEL Assessment Centres appointed by MQA.

APEL is divided into two categories, namely, APEL-A (admission) and APEL-C (credits). The APEL assessment methods are based on the adult learning theory, experiential learning theory and the Johari Window Concept (Kaprawi, 2011). For this study, we will be focussing on APEL-A in the master's degree of studies. Although APEL-A is relatively new in its implementation, this study aims to shed light on the assessment methods for APEL-A that are implemented based on feedback from the APEL-A assessors to gauge if the theories meet its practice. The study will look into the challenges faced by APEL-A assessors during the evaluation process as well as the APEL-A assessors' recommendation for improving the implementation process of APEL-A after experiencing it.

1.1 Background

Lifelong learning is defined as "learning engaged by everyone of the age of 15 and above except professional students" (Md Yunos, 2013, p. 21). The concept of recognising experiential learning is not new as it has long been introduced in the USA since the 1970s to promote lifelong learning (Kaur, 2007). Malaysia introduced the Enculturation of Lifelong Learning Plan 2011–2015 that aimed to increase the number of lifelong learners in Malaysia by up to 22.6m in 2020 or 65.9 per cent of the total population (Ministry of Higher Education Malaysia, 2011).

To promote lifelong learning through ODL, the Malaysian Ministry of Education and MQA initiated the open entry system in 2007 and later APEL in 2011 as an alternative entry route for those with no formal qualification to further their higher education by recognising their prior experiential learning and work experience. Such development would "encourage educational flexibility, open access, equal opportunity, value for money and increase potential economic growth through a higher educated workforce" (Clarke and Warr, 1997, p. 1236). APEL allows learners to leverage on their working experience to enrol into institutions of higher learning to pursue a formal qualification. Candidates are required to undertake three levels of APEL assessment, i.e. aptitude test, portfolio and interview. The aptitude test measures their competency, followed by a portfolio where they compile pieces of evidence of experiential learning like certificates, testimonials, reference letters, newspaper articles and evaluations among others. Finally, they have to undergo an interview with an APEL assessor, who is also a faculty member of the school the candidate intends to enrol into. Based on MQA's guidelines, only when the candidate passes all three levels of assessments, he/she is allowed to enrol into a master's programme. Only selected institutions of higher learning in Malaysia have been granted approval by MQA to implement APEL and the institution selected for this study is one of them.

1.2 Problem statement

With the advancement of technology and the introduction of APEL, pursuing tertiary education is now more accessible to learners than before. However, there will be challenges and best practices that will arise during the APEL implementation process and these challenges and best practices should be documented in order that universities administering it are made aware of them for further and continuous improvement (Singh and Md Yassin, 2009; Kaprawi, 2011). As many Malaysian HEIs have yet to

incorporate APEL policies and guidelines in their practices (Kaprawi, 2011), they will Implementation face challenges when it comes to its implementation. Elsewhere in the world, South Africa Quality Assurance (SAQA, 2011) mentioned that South Africa itself is struggling to determine effective strategies for APEL implementation despite implementing it since the 1990s. Hence, as MQA has set out the guidelines and the ODL HEIs have provided training needed for APEL assessment, this paper seeks to discuss the feedback from APEL assessors with regard to the APEL assessment instruments and challenges they face in its implementation to give insight into the APEL system.

and challenges of APEL-A

1.3 Research questions

This research aims to answer the following questions with reference to the master's degree studies:

- (1) How is APEL implemented?
- (2) What are the challenges in the implementation of APEL?
- (3) What recommendations can be done to improve the APEL implementation process?

1.4 Importance of research

APEL is an alternative form of enrolment into HEIs that the Government of Malaysia introduced in 2011. Until now, not much research has been done regarding its implementation in Malaysia. The number of learners' enrolled through this form of assessment may be low but will continue to grow as time continues. During this period, the feedback on the implementation of the APEL-A assessment process from APEL assessors would be greatly beneficial to the stakeholders involved in improving its implementation process. The highlighted challenges faced by these APEL-A assessors as well as the recommendations put forth may also be useful for the continuous improvement of the APEL-A admissions assessment process.

1.5 Limitations of the research

The first limitation to this research is due to the fact that APEL is a relatively new system in Malaysia. As such, not much literature can be found with regard to this area of research. This is a double edged sword as, on one hand, there is little prior research to against which to benchmark this research with. On the other hand, this also opens up a whole new world of possibilities to the potential of this research and the significance it can bring to this new field of knowledge. Another limitation is that it would be hard to obtain the assessment questions used for the aptitude test for analysis as these questions are kept within the MQA question bank and are confidential. As APEL is a relatively new form of assessment, the number of participants that are admitted through the APEL assessment method is quite limited albeit growing as time progresses. Nevertheless, it is hoped that this research would be able to shed light on APEL and help evaluate its effectiveness and validity in the admission of students into universities in Malaysia.

2. Literature review

After revamping the Lembaga Akreditasi Negara or National Accreditation Board (LAN) to MQA in 2007, MQA established the Malaysian Qualifications Framework (MQF). MQF is a form of instrument to classify national academic qualification criteria benchmarked against international practices. These criteria are based on academic learning outcomes, credit and academic load systems that apply to qualifications awarded by all HEIs in Malaysia. This enables individuals to progress towards higher education through an education pathway that links qualifications systematically, including credit transfers and/or recognition of prior experiential learning acquired through formal and informal learning that encourages lifelong learning. According to Kaprawi et al. (2015, p. 146), APEL, under MQF, is defined as "a systematic process that involves the identification, documentation and assessment of prior experiential learning, such as knowledge, skills and attitudes to determine the level at which an individual has achieved the desired learning outcomes, as access to a programme of study and/or the award of credit". MQF was later revised and officially released as MQF 2nd edition in 2018.

The Ministry of Education Malaysia designated three institutions as ODL-mode institutions namely: WOU, Open University Malaysia and Asia u-University while allowing other public and private universities to conduct their own distance and continuing education programmes (Bahroom and Latif, 2012). This meant that there were various kinds of interpretation of the concept of APEL. Different HEIs place importance on different priorities and practices in their APEL assessment according to the needs of each programme resulting in various student experiences of APEL. Research (Falconer and Troy, 2007; Konrad, 2001) on how APEL applicants' claims of prior experiential learning is evaluated based on four qualities: validity, sufficiency, quality and currency. Under validity, the evidence submitted must match the learning outcomes to the claim for credit. Sufficiency requires the volume and level of learning to match the claim. Quality looks into the submitted evidence's relation to the applicant's experience, whereas currency ensures that what is submitted is current to standard practices.

Sanséau and Ansart's (2013) research based in France found four main challenges when integrating the recognition of prior experiential learning in lifelong learning. They were that the candidates' experience were primarily technical or relational; recognition of prior experiential learning was expensive; the necessity to link recognition of prior experiential learning to a degree or diploma; the risk that lifelong learning may become overly "professionalised". Current APEL research in Malaysia (Md Yunos, 2013; Kaprawi, 2011) involves candidates from the Technical Vocational and Training (TVET) background as APEL is seen as an effective tool to help tailor the required training needed by the candidates to better match them to their tasks. It also enables human resource upskilling that is critical to Malaysia's need for skilled workers to achieve Vision 2020. However, little research looks into the academic spectrum where APEL procedures are now used to admit candidates into HEIs in Malaysia. These challenges plus these factors mentioned above further distort the public's perception on APEL and how it should be implemented.

Therefore, to successfully implement the APEL system, a lot of consultation, networking and exchange of ideas and experiences from among APEL stakeholders and experts from both national and international institutions are needed (Kek, 2016; Van Kleef, 2010; Singh and Md Yassin, 2009). Like Malaysia, many HEIs from various countries still face multiple challenges when it comes to the implementation of APEL due to the lack of information of the APEL system that is still relatively unknown to the public and this should be addressed.

3. Theoretical framework

According to Kaprawi (2011), APEL in Malaysia is founded on three main theories: adult learning theory, experiential learning theory and the Johari Window Concept. The adult learning theory and experiential learning theory have long been the pillars of the APEL system (Harris, 2000). The Adult learning theory from Knowles (1990) discusses on the changes that occur when learning happens, particularly in terms of psychology (behavioural and cognitive), anthropology and linguistics. Kolb's (1984) experiential learning theory holistically looks into the combination of experience, perception, cognition and behaviour that have become the methodological hallmarks of the recognition of prior learning. Kolb's experiential learning model, expressed in a four-stage cycle of learning, holds the principle of experiential learning theory as its core where 'immediate or concrete experiences' provide a basis for "observation and reflection" where they are considered "abstract concepts" that after going through "active tests"

and challenges

become new experiences (Kolb, 2016). The Johari Window Concept on which Alan Implementation Chapman's (2003 cited in Businessballs.com, Businessballs, 2017) Johari Window Model is based takes into account the candidates' effective aspects of learning including behaviours, cooperation, empathy, personal development and other soft skills.

All three theories form the basis of the APEL assessment tools to determine if the candidate qualifies to be admitted into the academic programme of his/her choice. The adult learning theory takes into account the candidates experience growing up to adulthood and what the candidate has acquired throughout his life. Based on the ALT, the aptitude test that is divided into four parts assesses a candidate's numeracy skills, language skills in Bahasa Malaysia and English as well as general knowledge/critical thinking. The portfolio section on which the experiential learning theory is based is to collect information on what the candidate had obtained throughout his working and other relevant experiences. Besides certificates, testimonials, reference letters, newspaper articles, etc., the portfolio that candidates submit includes a personal reflection stating the reasons why they chose to study the intended programme and what have they done in the past that would support their application. Finally, an interview is arranged for the candidate and both the admission and academic assessors to meet and discuss the candidate's suitability to enrol into the intended academic programme. This assessment tool is based on the Johari Window Concept that assesses if the candidate possesses the relevant affective skills like soft skills, interpersonal skills and behaviour suited for the intended programme and industry.

4. Implementation and challenges of accreditation of prior experiential learning (APEL)

"Accreditation of prior experiential learning (APEL) refers to the assessment and accreditation of any form of learning that has taken place in the context of either formal or informal education or during work itself" (Kaprawi et al., 2015). APEL is about giving value to the experience, skills and competencies gathered through formal, non-formal and informal means, and it includes formal schooling, work and life experiences, training, independent study, voluntary work, hobbies and family experiences (Malaysian Qualifications Agency, 2014).

The APEL application process for masters' level in WOU was adopted from the Malaysian Qualifications Agency (2014). The first stage is labelled as Start. In this stage, applicants are advised to do the self-assessment and ensure that the basic entry requirements set by the Ministry of Higher Education are met. Apart from being a Malaysian and meeting the age and academic qualification requirements, applicants must also assess the relevancy of their prior learning experience to their desired field of study. It is important for the applicants to understand the learning needs of the desired programme. The filtering process of applicants at this point would provide a clear and timely indication as to whether a learner should proceed with APEL. If the applicant feels he has the potential to pursue a master's degree in the desired field and has met the basic requirements, the applicant may apply to be assessed through APEL. Next, applicants are required to fill in the application form and to prepare a bank draft as an assessment fee. Then, the form together with the bank draft is to be submitted to the MQA for evaluation. Once, the MQA has processed the application form, they will notify the date and location of the aptitude test to be taken by the applicant. The next level is known as the APEL Assessment stage. At this stage, the applicant must sit for an aptitude test that the applicant must pass. It is also the first assessment to be taken by the applicants, and 40 per cent of the total APEL assessment comes from this aptitude test. The main objective of the Aptitude test is to evaluate the applicants' competencies and readiness to pursue a master's programme in any of the higher institutions in Malaysia. The criteria that will be tested include knowledge in Bahasa Malaysia, mathematics, general knowledge/critical thinking and English.

After passing the aptitude test, the applicant can proceed to the preparation of the portfolio. A portfolio is a compilation of documents of the applicant's prior experiences that includes formal, informal and non-formal learning. Applicants must provide a portfolio according to the format set by the MQA. For certificated learning, applicants must attach certified copies of the certificates or documents. For experiential learning, applicants may submit evidence in the form of a testimony from an employer/client/colleague; job specifications, images, web files and others and for non-formal learning, they may attach the certificates of attendance from the courses or trainings that they have attended. The portfolio assessment carries a weightage of 60 per cent of the total APEL assessment. Upon submission, their portfolios will be reviewed by subject matter or course experts from the corresponding schools according to their intended programme of study. Assessors will view the portfolios and are required to validate the evidences prior to their evaluation. They then rate the learner's portfolio based on seven criteria set by the university. namely, generic, numerical, communication, lifelong learning, knowledge, practical skills and self-refection. In order to pass this portfolio assessment, the applicant must get a minimum of 50 per cent of the total marks. The portfolio assessment process is expected to be completed within three working days from the date of submission. If the applicants pass the portfolio test, they will be contacted by the panel assessor(s) to set the date of the portfolio presentation or interview. At this stage, they are required to explain their acquired learning in greater detail. The assessor will then rate the applicants based on five scoring criteria, namely, administrative. communication or language, knowledge or skills in specific discipline, readiness to undertake a postgraduate study and finally action plan to complete the programme of study. An official notification letter to inform the results will be issued to the applicant by MQA. Applicants who have passed the APEL assessment (aptitude test and portfolio assessments) will be awarded the APEL admissions certification that can be used to apply for admission into any of the HEIs in Malaysia. Applicants who have failed the aptitude test may appeal for a review of the results or apply for a re-sitting. Applicants who have failed the portfolio assessment may resubmit the portfolio assessment. However, this re-submission can only be made at least six months after the date of notification of APEL results (Malaysian Qualifications Agency, 2014). Figure 1 summarises the implementation process of APEL in Malaysia in the form of a diagram.

5. Methodology

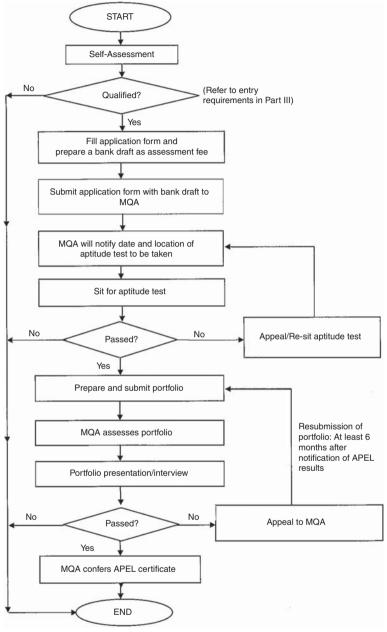
This paper is written based on the critical reflection of two APEL-A assessors appointed from a MQA approved assessment centre. Both assessors have been appointed as APEL-A assessors since 2015 and have assessed a combined total of 150 APEL candidates. According to Bart (2011), "critical reflection is a reasoning process to make meaning of an experience. Critical reflection is descriptive, analytical, and critical and can be articulated in a number of ways such as in written form, orally or as an artistic expression". This process of reflecting on their experiences is not only good practice for the assessors to improve themselves but also offers a wealth of information that are able to add depth and breadth to an experience that would build connections between the research questions and the content.

6. Challenges in the implementation of APEL: admissions

Based on the above process, the assessors found the following challenges in the assessment process for admissions.

6.1 Limited literature and records of existing practices

It is noted that although a thorough evaluation matrix has been put in place, there still is much room for improvement as can be learnt of South Africa's experience in implementing APEL. There is also the probability of non-standardisation between the fiur HEIs implementing APEL that may result in non-uniformity of AEL certification across the field. There is still



Flow chart of APEL certification process for masters level

Source: Malaysian Qualifications Agency (n.d.)

much room for the discussion of how APEL can and should be administered with standardisation across the board. This would raise the perception of APEL in the eyes of the common man and augur well with potential future employers as they will have a clearer picture of the true potential of an APEL-certified candidate.

6.2 Conceptualisation of the APEL process

As noble as the idea of allowing work experiences to be used as leverage for an individual to upgrade themselves with the proper paper qualifications, the lingering question remains whether the different experiences of each and every applicant is sufficient enough to qualify a candidate for tertiary education. In addition, the current process is very qualitative and subjective. Even with the existing framework in place, it still remains the prerogative of the APEL assessor to assess the applicant readiness to undertake tertiary education. It also runs the risk of non-uniformity in assessment standards across the assessment centres as different HEIs may use different forms of measurement to assess and admit a candidate.

6.3 Complicated and time-consuming APEL process

In allowing APEL to increase the number of lifelong learners in Malaysia, credit has to be given to the attempts of the Malaysian Ministry of Education and MQA in allowing this entrance qualification. However, when it comes to actual implementation, it is clear that the APEL assessment process is a complicated and time-consuming process as compared to conventional entrance education and examinations. Besides passing the aptitude test, candidates are required to compile artifacts to build their portfolios. After that, the process also involves an interview session that involves the candidate and two APEL assessors. All these are time-consuming and could probably cause greater delay when the number of APEL applicants grows.

6.4 Standard of acceptance vary according to discipline

Through APEL, the need for a common entrance examination to judge an individual's competency is no longer standard. Conversely, since it is subjected to each applicant's formal, informal and non-formal learning experiences, there exists a grey area as to whether each and every individual applicant is actually capable for tertiary education. The process to ensure the authenticity of the portfolios submitted by APEL applicants is verified only by the APEL assessors based in the assessment centre of the four HEIs. According to Laming (2004), "when someone comes to make a judgement in the everyday world, the point of reference is most often taken from past experience. Different people have different accumulations of past experience and for that reason make different judgements about the same issue". The assessors' expertise in their own fields plays an important role when judging the APEL candidates. However, as stated by Laming (2004), each of us has different views on the same issue and this could result in different views over the same candidate. As the result, the standard of acceptance could vary according to discipline across the faculties or the universities in general.

6.5 Lack of continuous training for APEL assessors

MQA has produced various assessment tools because its implementation and appointed assessors were given training before being appointed in 2011. However, these APEL assessors have not been sent for continuous training because of their appointments. Some trained assessors may even have retired or changed jobs and new assessors appointed by the HEIs may not have received the necessary training from MQA. Each HEI may organise meetings individually to update and train their assessors, but there have not been any formal workshops organised by MQA to collectively update all APEL assessors on the latest challenges that have surfaced because of its implementation or the improvements done by MQA to further improve the implementation process. This lack of continuous training may result in unfair assessment of candidates and could further hurt the credibility of the APEL assessment.

7. Recommendations for improvement in the implementation of APEL: admissions

In light of these challenges faced by the assessors, there is a need to look for improvements for the implementation of APEL-A. Transparent guidelines and continuous training for APEL assessors are needed to ensure consistency in practices and fairness to those from conventional learning. Institutions should also strive to integrate APEL into the institution's academic policy. Our recommendations are as below.

Implementation and challenges of APEL-A

7.1 The need for transparent and clear guidelines

It is imperative that clear and transparent guidelines from MQA are needed in the implementation of APEL certification. This would not only boost confidence of the employers but also ensure fairness is practiced by all assessors regardless of which HEI they come from because the process is very qualitative in its measurements and open to debate. All this would add to the credibility, integrity and sustainability of APEL in Malaysia and be recognised as equals to conventional education admissions.

7.2 Ensuring consistency in practices and fairness to those from conventional learning As discussed above, the implementation of APEL would support the government's initiative in increasing Malaysia's human capital growth as part of our effort to attain developed nation status. However, it is imperative that APEL is held up to the same standards as traditional forms of formal learning. APEL should be seen as a step for individuals who did not have opportunities for formal learning earlier in life to be given a second chance at education and not as a crutch for these people. Besides ensuring fairness for traditional formal educated individuals and experiential learning individuals, ensuring a consistency in practice would also ensure a truly high-skilled workforce in Malaysia. This would also indirectly raise the confidence of potential future employers in employing APEL certification holders as well.

7.3 Integrating APEL as part of the institution's academic policy

Although it is noted that only a few HEIs in Malaysia currently offer APEL, resolving the questions discussed in this paper would give us an insight into the implementation of APEL in implementing it across of HEIs. Much can be learnt from the experience of South Africa in its implementation of APEL and what we can avoid and learn from its mistakes. Rolling out APEL throughout all HEIs in Malaysia would certainly be a step in the right direction towards Vision 2020 and high-income nation status.

7.4 Provide continuous training for all APEL assessors

Continuous training should be given to all APEL assessors regardless of discipline to further enhance their assessment skills. MQA can gather all appointed APEL assessors from all four HEIs for training and workshops. Discipline-specific training may also be provided to make all APEL assessors to be on the same page. This would provide a standard reference to all the assessors specific to their discipline as various disciplines requires different learning experiences as pre-requisites to pass the APEL assessment. These continuous trainings can also be done at least once every two years to keep the assessors abreast on the new challenges faced by other assessors across the nation as well as provide the new improvements made to the guidelines to keep the APEL assessment process current to the development of society.

8. Conclusion

To summarise, APEL in Malaysia was created on the backbone of adult learning theory, experiential learning theory and the Johari Window Concept. Together these three concepts

create a holistic approach in assessing the experiential learning for tertiary certification. MQA has created a framework that has been implemented across the selected four HEIs to aid in the assessment and standardisation of experiential learning as the foundation of a tertiary education. It cannot be denied that there would exist disputes and challenges in the implementation of APEL, especially due to the subjective nature of its assessment. As such, we would recommend the need for quality assurance for APEL so that it can be held in the same regard as conventional education. Lifelong learning is important to every nation in the world as it leads to developing human capital and increasing economic competitiveness. Therefore, it is hoped that MQA will continue to provide direction and encourage for the effective administration of APEL by the selected HEIs. With APEL, it is hoped that more and more people will be given the opportunity to improve themselves in their career and personal satisfaction.

References

- Bahroom, R. and Latif, L.A. (2012), "Open and distance learning as the key driver of lifelong learning", National Conference on Lifelong Learning, Malaysian Ministry of Higher Education, Kuala Lumpur, 22–23 September.
- Bart, M. (2011), "Critical reflection adds depth and breadth to student learning", available at: www.facultyfocus.com/articles/instructional-design/critical-reflection-adds-depth-and-breadth-to-student-learning/ (accessed 13 April 2017).
- Businessballs (2017), "Johari Window Model and Free Diagrams", available at: www.businessballs. com/johariwindowmodel.htm (assessed 12 April 2017).
- Clarke, J.B. and Warr, J. (1997), "Academic validation of prior and experiential learning: evaluation of the process", *Journal of Advanced Nursing*, Vol. 26 No. 6, pp. 1235-1242.
- Department of Statistics Malaysia (2015), "Population and demography", available at: www.statistics. gov.my/index.php?r=column/ctwoByCat&parent_id=115&menu_id=L0pheU43NWJwRWVSZ klWdzQ4TlhUUT09 (accessed 14 April 2017).
- Economic Planning Unit (2015), *Eleventh Malaysia Plan*, Percetakan National Malaysia Berhad, Kuala Lumpur.
- Falconer, S. and Troy, J. (2007), "Credit where credit's due' piloting the accreditation of experiential learning-a case study", *Journal of Business and Society*, Vol. 20 No. 1, pp. 60-68.
- Harris, J. (2000), "Re-visioning the boundaries of learning theory in the assessment of prior experiential learning (APEL)", 30th SCUTREA Annual Conference, Main Library, University of Nottingham, Nottingham, 3–5 July.
- Kaprawi, N. (2011), Leveraging Accreditation of Prior Experiential Learning (APEL) for Human Capital Development, Penerbit UTHM, Batu Pahat.
- Kaprawi, N., Razzaly, W. and Wan Ali, W.N.S. (2015), "Implementation framework system for accreditation of prior experiential learning (APEL) in higher education institutions in Malaysia", *Jurnal Teknologi*, Vol. 77 No. 33, pp. 145-150.
- Kaur, K. (2007), "Enlivening the promise of education: building collaborative learning communities through online discussion", in Lytras, M.D., Tennyson, R.D. and Ordóñez de Pablos, P. (Eds), Knowledge Networks: The Social Software Perspective, IGI Global, Hershey, PA, pp. 257-279.
- Kek, L.S.Y. (2016), "Quality assurance in the implementation of APEL at open university Malaysia", 2016 MQA & IQA International Seminar on Quality Assurance of Higher Education, Main Library, Open University Malaysia, Kuala Lumpur, 17–18 October.
- Knowles, M. (1990), The Adult Learner: The Neglected Species, Follett, Chicago, IL.
- Kolb, D. (1984), Experiential Learning, Prentice Hall, Eaglewood Cliffs, NJ.
- Kolb, D.A. (2016), "Experiential learning", available at: www.learning-theories.com/experiential-learning-kolb.html (assessed 14 April 2017).

and challenges

of APEL-A

- Konrad, J. (2001), "Accreditation of prior experiential learning in the United Kingdom", working paper, Implementation School of Education and Professional Development, Leeds Metropolitan University, Leeds, available at: www.leeds.ac.uk/educol/documents/00001831.htm (assessed 16 April 2019).
- Laming. D. (2004), Human Judgment: The Eye of the Beholder, Thomson Learning, London.
- Malaysian Qualifications Agency (2014), APEL Handbook for Learners, Malaysian Qualifications Agency, Kuala Lumpur.
- Malaysian Qualifications Agency (n.d.), APEL Guidelines to Good Practices: Accreditation of Prior Experiential Learning, Malaysian Qualifications Agency, Kuala Lumpur.
- Md Yunos, I. (2013). Practices on APEL for TVET Teacher Training Programs Admission and Advance Standing Processes, Regional Cooperation Platform for Vocational Teacher Education in Asia, Shanghai,
- Ministry of Higher Education Malaysia (2011), Blueprint on Enculturation of Lifelong Learning for Malaysia 2011-2020, Univision Press SDN BHD, Kuala Lumpur.
- Sanséau, P.Y. and Ansart, S. (2013), "Accreditation of prior experiential learning as a catalyst for lifelong learning; analysis and proposals based on French experiments", Journal of International Education Research, Vol. 9 No. 4, pp. 317-327.
- SAQA (2011), "Developing approaches to the assessment of prior learning", South African Quality Assurance, Pretoria, available at: www.saga.org.za/focus/rpl-assessment.pdf (accessed 15 April 2017).
- Singh, D.H.K. and Md Yassin, I. (2009), "Initial experience in implementation of open entry and recognition of prior learning in OU Malaysia", Main Library, Open University Malaysia, Kuala Lumpur, available at: http://eprints.oum.edu.my/201/1/Initial experience.pdf (accessed 14 April 2017).
- Van Kleef, J. (2010), "Quality in prior learning assessment and recognition: a background paper", Canadian Institute for Recognizing Learning, Toronto, available at: www.viauc.dk/ projekter/NVR/Documents/Kyalitetskodeks/joy%20van%20kleef%20quality%20paper.pdf (accessed 15 April 2017).

Further reading

Knight, B. (2006), "Assessment for recognition of prior learning in technical and vocational education and training in Australia: where to from here?", National Centre for Vocational Education Research, Adelaide, available at: www.iaea.info/documents/paper 1162a17210.pdf (accessed 14 April 2017).

Corresponding author

Li Hsien Ooi can be contacted at: seanolh@gmail.com