PLAR (Prior Learning Assessment & Recognition) at an Open University

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Introduction

PLAR (known in different countries as APEL, PLAR, or RPL) is the practice of assessing and recognizing learning that mature postsecondary students have acquired outside the formal education system, through their work or community involvements. Recent OECD reports (Werquin 2010) have emphasized the substantial benefits that could result from the recognition of prior learning, particularly in terms of stimulating adult learners' motivation to participate in education and training. For adult students, the use of PLAR can significantly reduce the time and cost of completing or upgrading post-secondary credentials (Aarts et al., 2003; Thomas, Collins, & Plett, 2002). CAEL (Council for Adult and Experiential Learning), a United States advocacy organization instrumental in catalyzing a worldwide PLAR movement (Evans, 2000; Thomas, 2000), has identified PLAR policies and procedures as one of the key elements in creating adult-friendly institutions of higher education. CAEL sponsored a recent large-scale study (Klein-Collins, 2010) that demonstrated PLAR's benefits for adult learners: better academic outcomes than students who did not use PLAR; more courses taken; better persistence towards completing a degree; and a shorter times to complete a degree.

For open, distance education institutions, increasing access to postsecondary education through offering effective PLAR services is an important issue (Joosten ten Brinke, 2008; Peruniak & Powell, 2007). This paper describes and discusses PLAR offered through *Thompson Rivers University – Open Learning (TRU – OL)*. It begins with a description of PLAR support services and assessment procedures, with a focus on quality assurance. Next, it presents findings from a qualitative study that examined students' motivation for undertaking PLAR, their experience with PLAR support services, and their satisfaction with both the process and the outcomes of their PLAR experiences. The paper concludes with a discussion of research on PLAR that is being undertaken at TRU – OL's Prior Learning International Research Centre.

Prior Learning Assessment & Recognition at Thompson Rivers University – Open Learning

In keeping with its belief in life-long learning, Thompson Rivers University – Open Learning (TRU – OL) recognizes that many adult learners have acquired training, skills and knowledge through education in non-formal, as well as formal settings: that is, in life and work experience, as well as in formal schooling. TRU - OL also recognizes that because many adults without a post-secondary diploma or degree now find their professional careers threatened or restricted, they need to move as quickly as possible to program completion. TRU - OL endeavours to meet this need by providing such individuals with the opportunity to build upon previous learning and apply it toward the requirements of a program.

Thompson Rivers University was created by an act of the Legislature of the Province[1] of British Columbia in 2005, uniting the former British Columbia Open University (BCOU) with the University College of the Cariboo. The Thompson Rivers University Act identifies that one of the major purposes of the university is "to provide an open learning educational credit bank for students." (TRU

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[1] Canada's constitution assigns responsibility for education, including postsecondary education, to the provincial level of government.

Act 3(1)(d), 2005). The Act, however, does not define this term. Research into historical documents shows, however, how the term came into use, and how the concept has changed over time. Clearly, the original intention of the Credit Bank was to provide greater access to postsecondary education. According to a internal BCOU document dated 1987:

> "A credit bank is a mechanism for achieving two main objectives:
> a) The evaluation of, and recording of credits for skills and knowledge which has [sic] been gained through non-formal learning, or through organizations which are not normally recognized for transfer credit purposes.
> b) The granting of credentials based on credits obtained either through formal learning and/or through a) above, without a requirement of a minimum amount of work through a particular institution."

Prior to 1988, students who changed institutions during their postsecondary careers had no easy way to have credits earned at one college or university recognized at another college or university. The BC Council on Admissions and Transfer (BCCAT) was created as part of the same government policy *Access for All* that had led to the creation of the BCOU. The BCCAT's purpose was to coordinate transfer credit agreements amongst the autonomous institutions in the province.

BCCAT began by facilitating the development of Articulation Committees with representatives from postsecondary institutions who negotiated policies, procedures and transfer agreements. Then, BCCAT began annual publication of a Transfer Guide, which gave students and institutions clear information on acceptable transfers. This Guide went on-line in 2001 (BCTransferGuide.ca) and includes information about both how individual courses transfer between institutions and about how college-level certificates and diplomas from one institution ladder into university degrees at another institution.

With the creation of BCCAT to facilitate transfer credit, the 1987 definition above of an educational Credit Bank began to shift in focus to the evaluation and accrediting of learning acquired outside the formal education system. In the early 1990s, the BC government began province-wide implementation of Prior Learning Assessment & Recognition (PLAR), which supported learners to use portfolios to document their informal learning against course and program learning outcomes (Blower, 2000). With that initiative, BCOU began to use the term "credit bank" to refer only to the evaluation of non-formal learning (courses and workshops outside the accredited formal education system), while evaluation of informal learning (or experiential learning) was done through PLAR.

In the mid-1990s, BCOU began a large-scale project with a major automobile manufacturer, Daimler-Chrysler, to offer its employees the opportunity to complete a Bachelor of General Studies degree. The program featured both evaluation of individual workplace learning (informal learning) via PLAR and evaluation of employer-provided training courses via a program review process. This review process assigned credit values (amount and level of study) to this training and these credit values were recorded in the "credit bank". If an employee had satisfactorily completed one of these courses, as verified by the employer, she or he could remove the credits from the credit bank and apply them to her or his degree program.

Following the success of the Daimler-Chrysler project, BCOU developed a proposal for the Canadian Credit Review Service, which would offer evaluations of employer-provided training to organizations across the country. This service was implemented in 2000 on a fee-for-service basis. At that time, however, the provincial government's appetite to stay involved in access initiatives was waning, and with it, their support for the new service. In 2003, the Canadian Credit Review Service was transferred to a different institution, and in 2004, it was transferred to Campus Canada, a federally funded initiative to consolidate distance education courses and programs. In 2005, however, the Credit Bank concept came full circle back to TRU – OL, in the Thompson Rivers University Act, and once again encompasses the evaluation of all forms of learning acquired outside of formal education.

TRU – OL's PLAR Processes and Supports

At TRU – OL, a centralized PLAR Department (http://www.tru.ca/distance/plar-ol.html) is responsible for working with any student who is enrolled in any TRU – OL program and wishes to earn PLAR credits. The PLAR Department makes a significant effort to inform the students about the availability of PLAR, because research has demonstrated that the availability of such information is critical to student participation (Wihak, 2007). The PLAR Department pages on the TRU-OL website provide students with information about the advantages of PLAR, the process, and the costs, as well as giving examples of PLAR portfolios and video clips of interviews with PLAR Department personnel and PLAR students. In addition, the PLAR Department sends basic information via e-mail about PLAR, its potential benefits, and how to apply for it to every new student registering in a TRU – OL program.

The process of applying for PLAR credits commences only after all Transfer Credits have been evaluated and applied against the requirements of the student's program. Students have three options for earning PLAR credits:
- Credit Bank
- Portfolio Assisted Assessment
- Course Challenge

Credit Bank
In the Credit Bank[2] form of PLAR, TRU – OL assesses training that has occurred outside the formal education system. If this training meets our standards, it receives pre-approval for application towards our credentials. A student who has documented proof of having completed such training can draw these credits out of the credit bank and apply them as appropriate to meeting the requirements of a TRU – OL program.

Our process for evaluating extra-institutional training is modeled on the ACE (American Council on Education) Credit Recommendation Service process. Two or three content experts perform a comprehensive review of the training, examining:
- Content and learning outcomes
- Instructor qualifications
- Assessment methods
- Course and instructor evaluation procedures
- Record-keeping
- Resources available to support learning (e.g. library, computers, labs)

The content experts are usually faculty members associated with TRU, but are recruited as necessary from other accredited institutions. These experts are responsible for making recommendations to the PLAR Director with regard to whether credit should be awarded for the training, and if so, how much credit, what level or credit, and in what discipline. To further ensure academic oversight, the PLAR Director in turn reviews these recommendations with the Academic Director (s) responsible for the relevant discipline(s). The results of the evaluation are formalized in a partnership agreement and posted on the PLAR Department website http://www.tru.ca/distance/services/plar-ol/creditbank.html.

Organizational partners in our credit bank range from professional associations providing professional development courses, to non-accredited institutions offering programs that are recognized for licensing purposes by professional regulatory bodies, to an organization training immigrant women, and a major restaurant chain providing in-house management training.

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[2] Primarily for promotional reasons, the term "Credit Bank" has been once again re-purposed to focus on evaluation of non-formal training, although the broader idea "open learning educational credit bank" from the TRU Act is understood to include all types of PLAR, as well as generous transfer credit provisions.

Portfolio-based PLAR

Students can challenge particular courses by preparing a portfolio that demonstrates through narrative explanations and supporting documentary evidence that she or he has met the learning outcomes of the course from learning gained through experience. If the student's learning is not directly equivalent to a particular course but is at the post-secondary level, the student can compile a portfolio that will demonstrate that she or he has met a set of critical competencies derived from program learning outcomes.

The first step in the Portfolio-assisted PLAR process is for a student to submit a Knowledge Resume for a free pre-assessment about the student's suitability for PLAR. The Knowledge Resume is similar to a Curriculum Vita but contains more information concerning non-formal courses and workshops, as well as volunteer experience and hobbies, than would normally be found in a job-oriented CV.

PLAR Department staff and/or content experts from the student's program area review the student's experiences shown in the Knowledge Resume in light of the requirements of the student's program. They assess whether the student is a good candidate to proceed with PLAR to earn credits towards their program by seeing if there is a good match between the student's opportunities to have gained experiential learning and course or program learning outcomes. Generally, good candidates for PLAR have a minimum of 3-5 years of work experience, preferably at a supervisory level and/or evidence of significant achievements in community service or hobbies. Once the PLAR Department notifies the student of approval to make a PLAR application, the student pays the PLAR fee. The student is then given access to the PLAR Department Blackboard site, which provides instructions on portfolio preparation, examples of successful and unsuccessful portfolios, FAQs, and a Discussion Board for posting questions to the PLAR Department team.

a. Course-Based Portfolio

In a Course-Based PLAR Portfolio, the student must demonstrate that she or he has sufficient knowledge of the course's detailed learning outcomes to be granted a Pass for the course. For example, a detailed learning outcome from an introductory Business course is:

> "Differentiate where a supervisor fits into an overall organization hierarchy, including his or her interaction with other management and operative employees."

A student's PLAR portfolio could present a statement such as this to demonstrate his learning:

> "I have been a supervisor for approximately eight years including a period of about 1 year spent as a mid-level manager. Supervisors are the only level of management that don't oversee any other level of management. They are responsible for supervising operative employees only. They are the first level of management in the hierarchy of an organization and typically report to someone in mid-level management. In my experience a supervisor has a challenging role in that to the operative employees they are an advocate for the management side of the organization, however to mid to upper management they are an advocate for the operative employees of the organization.

Students are allowed 12 weeks to prepare and submit a course-based portfolio, with limited coaching available from the PLAR Advisor. The faculty member responsible for the course usually evaluates the submitted portfolio and prepares a written report, using a standardized template, that becomes part of the student's permanent record. If the portfolio is successful, the course name and number appears on the student's transcript with a grade of "S", indicating satisfactory completion via PLAR.

b. Competency-Based Portfolio

In a Competency-Based Portfolio, students provide evidence that they have acquired *Eight Critical Competencies*, as assessed by established criteria at the lower and/or upper undergraduate level. The competencies were developed to reflect both the expected learning outcomes of a liberal arts program

and desirable qualities in the contemporary workplace. These competencies are used to award unspecified elective credits towards a range of TRU-OL credentials in Arts, Business, General Studies, Health Sciences, and Sciences. (Students wishing to petition for academic credits within a specific subject area such as History would use a course-based portfolio). The Eight Critical competencies are:

- Communications Abilities
- Information Organization Abilities
- Problem-solving/Decision Making Abilities
- Numeracy Skills
- Critical Thinking
- Intellectual Maturity
- Independent Study and Learning Skills
- Applied Knowledge and Abilities

Detailed information on the Critical Competencies and the criteria for their assessment as lower or upper-level credit is provided to candidates on the PLAR Department Blackboard site, which they can access after they have made a formal PLAR application and paid the PLAR fee.

Here is an example of how a student has described her Communication competencies. The references to "Item B, Item J", etc. refer to documentary evidence that the student has provided as an appendix to her portfolio.

> "I am able to relate complex financial terms and concepts to my clients, many of whom have very little financial background or education. I often use drawings or draw verbal comparisons to something that the client is familiar with in order to explain my point. Examples of my drawings that I use to illustrate financial concepts can be seen in the sample financial plan (item B, pages 19-21 in the documentation section) enclosed. When I meet with clients it is important that I learn what their priorities and goals are regarding their money, as well as what their current situation is. By using the Goals and Concerns card, as well as the PFR (item B, pages 22-24 in the documentation section) in an effective manner, I am able to better understand my clients and to do a good job for them. Some sensitivity is needed in requesting private financial information from clients as well as convincing them to share their personal values and goals regarding money. Effective communication is very important at this juncture. By utilizing a written financial plan (item B, pages 12-18 in the documentation section) I am able to analyze a client's current situation and communicate my recommendations in a way that both the client and I can refer back to. As a part of my volunteer board of directors position with Victoria Community for B.C Children's Hospital I have had the opportunity to speak to the media to promote our Easter Egg Hunt and also to raise awareness about our local fundraising board and the needs of the hospital through discussing our own family's experience at B.C. Children's Hospital. This is evident in the media coverage our Easter Event received. (Items J, K, L, pages 38-40 in the documentation section; film clips on CD)."

Students are allowed 24 weeks to complete their portfolios. They are encouraged to submit their portfolios in electronic format, although at this point, we still accept portfolios in hard copy for an extra fee. The PLAR Director first reviews the portfolio for completeness, and then sends the portfolio to two assessors who have both relevant content expertise and training in PLAR portfolio assessment.

The assessment team members begin by assessing the portfolio independently. When they have completed their preliminary assessments, the PLAR Department sets up a time for a teleconference with the assessment team and the PLAR candidate. The purpose of the interview is a further exploration of the learning described in the portfolio. Prior to the interview, the assessment team members discuss the questions they would like to ask the student, identifying areas of weakness that

need to be probed. The PLAR team asks the student to walk through each competency and elaborate on the evidence presented. No additional preparation is required on the part of the candidate.

After the interview, the assessment team members confer and come to a tentative agreement on how many lower level and/or upper level credits, if any, should be awarded. One member of the team then drafts a formal report, again using a standard template, which is reviewed by the second team member before forwarding to the PLAR Department. The Director of PLAR reviews each report and if it is acceptable, communicates the credit award to the student and to the Student Record System. Credits earned through competency-based PLAR are considered Applied Studies credit and indicated on the student's transcript in the form of an "S" (Satisfactory completion) grade.

Course Challenge
In a course challenge process, students complete the equivalent of a final exam under strictly supervised conditions. Not all TRU – OL courses are available for challenge, as not all content is amenable to assessment via a single comprehensive exam. Most challenge exams are written in the area of modern languages. TRU – OL offers the students the opportunity to write language exams in languages that we do not teach (e.g. Korean, Mandarin, Hungarian). If the language to be challenged is the student's first language, the challenge exam must be at the upper level. Although students are informed about their grades on challenge exams, the result appears on transcripts with the letter grade "S" for satisfactory completion via PLAR.

Quality Assurance in PLAR

Quality Assurance (QA) concerns are top priority for the PLAR Department at TRU – OL. The institutional policy on PLAR requires our processes and procedures to conform to the PLAR Standards established by the Council for Adult and Experiential Learning (Fiedler, Marineau & Whittaker, 2006). These CAEL standards are being used as basis for PLAR QA in a number of American universities (e.g. Middle States Association of Colleges and Schools) and Canadian universities (e.g. Athabasca University, Brandon University, Ryerson University, University of Prince Edward Island, TRU). The standards are:

"1. Credit or its equivalent should be awarded only for learning, and not for experience.
2. Assessment should be based on standards and criteria for the level of acceptable learning that are both agreed upon and made public.
3. Assessment should be treated as an integral part of learning, not separate from it, and should be based on an understanding of learning processes.
4. The determination of credit awards and competence levels must be made by appropriate subject matter and academic or credentialing experts.
5. Credit or other credentialing should be appropriate to the context in which it is awarded and accepted.
6. If awards are for credit, transcript entries should clearly describe what learning is being recognized and should be monitored to avoid giving credit twice for the same learning.
7. Policies, procedures and criteria applied to assessment, including provision for appeal, should be fully disclosed and prominently available to all parties involved in the assessment process.
8. Fees charged for assessment should be based on the services performed in the process and not determined by the amount of credit awarded.
9. All personnel involved in the assessment of learning should pursue and receive adequate training and continuing professional development for the functions they perform.
10. Assessment programs should be regularly monitored, reviewed, evaluated, and revised as needed to reflect changes in the needs being served, the purposes being met, and the state of the assessment arts." (CAEL, 2011)

In addition to meeting the CAEL Standards, the PLAR Department adheres to Quality Assurance Guidelines recently developed for Canadian post-secondary institutions (Amichand et. al., 2007; Van Kleef et. al., 2007). These guidelines expand on the CAEL standards and provide more detailed suggestions on actual implementation of a PLAR program. They address two areas: Foundational Policies and Management of the Assessment Process.

Foundational Policies
- Should reflect CAEL principles or other QA principles
- Incorporate PLAR into existing QA mechanisms, including periodic program reviews, external peer review and student feedback
- Develop specific QA mechanisms for PLAR
- Link PLAR to educational planning
- Provide PLAR support services for learners and assessors
- Have clear, transparent definitions of PLAR and QA processes and communicate these clearly to learners and internal/external stakeholders
- Include records management systems for PLAR in QA reviews

Management of the Assessment Process
- Need clear learning standards (outcomes) available for learners, assessors
- Need criteria for assessors to judge prior learning (relevance, breadth, depth, currency, sufficiency, authenticity)
- Need criteria for assessors to select appropriate assessment tools
- Need to ensure assessment processes are reliable and valid

Students' Experience of PLAR at TRU-OL

Warkentin (2009) conducted an evaluation of the PLAR Process at TRU – OL from the student perspective. Conducted as a qualitative case study, the research reported on six students who had participated in the course-based or competency-based form of PLAR. The size of the PLAR credit award for these students ranged from 9 credits to 36 credits.[3]

The students' primary motivation for undertaking PLAR was "primarily pragmatic and economic in nature" (Warkentin, 2009, p. 5), to complete a credential as quickly as possible for career advancement purposes. The students were appreciative of the cost savings that came from earning credits through PLAR rather than through paying enrolling in the course and paying tuition. As one student commented, "*I paid $500 and I ended up getting probably 12 to 15 thousand dollars worth of return.*" (p. 48).

For students who completed competency-based portfolios, an unexpected benefit was the opportunity to reflect on past accomplishments, thus gaining confidence. As one participant remarked, "*That's part of the strength of it, I think, is that it does force you to stop, take a breath, and think about where you are and how you got there.*" (Warkentin, 2009, p. 47). Another student used the portfolio as her legacy to share with her children and grandchildren.

The benefit of reflection was not as apparent in the comments from students who had completed course-based PLAR. Warkentin (2009) speculated that this is "likely in part because applicants must demonstrate specific skills and knowledge in relation to pre-set guidelines (detailed questions, course outlines and objectives), which may not leave as much opportunity for self-reflection…" (p. 47)

Warkentin (2008) stressed clear learning outcomes and clear guidelines on how to demonstrate learning against these guidelines as crucial to students' positive experiences with course-based PLAR

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[3] Most for credit courses in Canada are worth 3 credits, with a four-year Bachelor's degree requiring 120 credits for graduation.

portfolios. Having guidance from a PLAR Advisor who can give feedback on the portfolio-in-progress was also seen as an asset. Some of the students involved in course-based PLAR nevertheless found the amount of work involved in preparing a PLAR portfolio to be more than seemed justified by the amount of credit earned. As Warkentin pointed out, "A problem with on-the-job and experiential learning is that it may not fit neatly into the categories and criteria …identified as "university-quality" (p. 37)." The student may have difficulty articulating experiential learning in the appropriate conceptual language.

The acceptance of credits earned through PLAR by employers and other post-secondary institutions provides secondary evidence the PLAR process at TRU – OL is successful. While in the process of arranging to return student documents, TRU – OL explored the question of acceptance of PLAR credits via e-mail with students who had earned credits from 2002 to 2007. Of students who answered our question, the vast majority reported that the degrees they had earned with PLAR credits were readily accepted by their employers. In addition, several students reported that these degrees had been accepted for admission to MBA programs. Only one student reported that while one Canadian university had accepted the PLAR credits, a second had refused to recognize them. These findings point in the direction of PLAR procedures being credible.

Prior Learning International Research Centre

Recognizing the need to facilitate, coordinate, and disseminate scholarly research on theoretical foundations and practices in the PLAR field, TRU – OL created the *Prior Learning International Research Centre* (PLIRC) http://www.tru.ca/distance/plirc.html . The mission of this international research centre is to stimulate innovative and provocative research concerning prior learning and the theory, policy and practice of its assessment and/or recognition and/or validation. PLIRC's first major accomplishment was the 2011 publication *Researching the Recognition of Prior Learning* (Harris, Brieir & Wihak), an edited collection of paper summarizing PLAR research from around the world. This book also set out an international research agenda for the PLAR field, calling for more scholarly research and more nuanced research.

PLIRC is also undertaking original research. One project involves students at a private training college in Myanmar. Using intercultural communication as a theoretical lens, the study is exploring how individuals from a different cultural context experience the development of a PLAR portfolio based on North American competencies. The first phase of the research is complete, with all Myanmar students successfully obtaining the maximum allowable lower level credits for their competency-based PLAR portfolios, prepared and assessed according to TRU – OL requirements. The second phase will involve an analysis of observational and interview data, combined with an analysis of the portfolios themselves, to elucidate the process and language the students used to express their learning to assessors from a different culture.

A second project involves an international survey of how institutions conducting PLAR at a distance protect against academic misconduct such as fabrication and plagiarism. The idea for this study arose from student comments in Warkentin's (2009) research. Several of her participants mentioned their awareness that the interview process for competency-based portfolios was intended to authenticate the learning claims in the portfolios. The survey will investigate what other authentication methods are used for PLAR in the distance education context, and their relative benefits and drawbacks.

A third project in the planning stages involves using techniques adapted from the field of instructional design to analyze the cognitive complexity of the tasks involved in preparing a PLAR portfolio.

Finally, we are beginning to investigate how PLAR processes can be used to evaluate learning gained from self-study using Open Educational Resources. TRU is one of the anchor institutions of the Open Educational Resources Foundation, a UNESCO initiative that aims to provide free learning opportunities for all students worldwide. While postsecondary learning opportunities through distance are becoming increasingly available from sources such as MIT's open courseware, the Khan

Academy, and the Saylor Foundation, what is currently lacking is any means for learners to gain accreditation for their independent studies. Potentially, PLAR could be a vehicle for such recognition being granted, an exciting possibility indeed.

Conclusion

Since 1987 when the idea of a credit bank first surfaced at BCOU, the concept has undergone significant evolution. The enshrinement of the "open educational credit bank" concept in TRU's founding legislation has led to the creation of a vibrant PLAR Department to implement it. Through the three major forms of PLAR (Credit Bank, portfolio and challenge exam), increasing numbers of students are benefitting from having the learning they acquired outside formal education recognized for credit. PLAR increases students' confidences as learners and saves them both time and money in completing their educational programs. While providing this opportunity for students, TRU follows recognized Quality Assurance principles and processes to ensure the academic integrity of the PLAR assessment process. In offering students the opportunity to earn credit through PLAR, TRU is staying true to the spirit of increased access to education that permeates the community of Open institutions around the world.

References

Aarts, S., Blower, D., Burke, R., Conlin, E., Lamarre, G., McCrossan, W., et al. (2003). *Feedback from learners: A second Cross-Canada study of prior learning assessment and recognition*. Toronto: Cross-Canada Partnership on PLAR.

Amichand, S., Ireland, M., Orynik, K., Potter, J. & Van Kleef, J. (2007). *Quality assurance in PLAR. A guide for institutions*. Ottawa: Canadian Council on Learning.

Blower, D. (2000). *Canada: The story of Prior Learning Assessment and Recognition*. In N. Evans (Ed.) Experiential learning around the world, pp. 83-102. London: Jessica Kingsley.

CAEL (2011). *Follow the Ten Standards for Assessing Learning*. Retreived Dec. 23, 2011 from http://cael.org/Whom-We-Serve/Colleges-and-Universities/Prior-Learning-Assessment-Services

Fiedler, M., Marienau, C. & Whitaker, U. (2006). *Assessing learning: Standards, principles & procedures (2nd ed)*. Chicago: Council for Adult & Experiential Learning.

Harris, J., Breier, M. & Wihak, C. (Eds.). (2011). *Researching the recognition of prior learning*. Leicester, UK: The National Institute of Adult and Community Education (NIACE).

Joosten ten Brinke, D. (2008). *Assessment of Prior Learning*. Unpublished doctoral dissertation, Open University of the Netherlands.

Klein-Collins, R. (2010). *Fueling the race to postsecondary success: A 48-institution study of Prior Learning Assessment and adult student outcomes*. Chicago: Council for Adult and Experiential Learning.

Peruniak, G. & Powell, R. (2007). Back eddies of learning in the Recognition of Prior Learning: A case study. *Canadian Journal of University Continuing Education, 33(1),* 83-106.

Thomas, A. (2000). Prior Learning Assessment: The quiet revolution. In A. Wilson and E. Hayes (Eds.), *Handbook of adult and continuing education* (pp. 508-522). San Francisco: Jossey-Bass.

Thomas, A., Collins, M., & Plett, L. (2002). *Dimensions of the experience of prior learning assessment & recognition* (NALL working paper #52). Toronto: OISE.

Van Kleef, J., Amichand, S., Carkner, M., Ireland, M., Orynk, K., & Potter, J. (2007). *Quality Assurance in PLAR. Issues and Strategies for Post-secondary Institutions*. Ottawa: Canadian Council on Learning.

Werquin, P. (2010). *Recognising non-formal and informal learning: Outcomes, policies and practices*. Paris: OECD.

Warkentin, L. (2009). A case study evaluation of the PLAR process from the perspective of students. Unpublished MEd report, St. Franics Xavier University.

Wihak, C. (2007). Prior Learning Assessment & Recognition in Canadian Universities: View from the Web. *Canadian Journal of Higher Education, 37,* 95-112