Recognition of prior learning: Credit transfer for enrolled nurses studying science in the Bachelor of Nursing program

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KEY WORDS
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ABSTRACT

Objective
The aim of the study was to investigate the impact of Recognition of Prior Learning (RPL), on academic achievement for enrolled nurses (ENs), who applied for credit transfer for first stage science in the Bachelor of Nursing program (BN).

Design
A survey method was employed using a quantitative and qualitative approach. The design was based on a questionnaire that included three sections: demographic information; a five-point Likert scale broken into four constructs; and free text open-ended questions.

Setting
The study was conducted from a regional nursing and rural health unit of a South Australian tertiary education institution.

Main outcome
Main outcomes from the study showed the constructs of Regret, Difficulty, Advantage and Satisfaction of receiving RPL for first stage science, identified some Diploma undergraduates have difficulty in studying second stage science, whereas other Diploma undergraduates are able to grasp the concepts and are satisfied with their achievement.

Results
44.5% accumulatively of strongly disagree and disagree responses of respondents felt they were unprepared through their science education at TAFE. 33.5% of accumulative responses from respondents of strongly agree and agree identified they were prepared for second stage science through pre-learned science at TAFE. 15% of respondents were undecided as to whether they were prepared for second stage science in the BN program.

Conclusion
Applying for RPL can have an advantage for an applicant and this study has shown that some ENs entering the BN program were advantaged, while others expressed disadvantage and would have preferred to have received credit RPL in another area of the BN program rather than first stage science.
INTRODUCTION

Anecdotal evidence gained through discussion with undergraduate nursing students who were on clinical placement suggested that some nursing students who were Diploma ENs perceived that RPL for science at first stage put them at a disadvantage. Some Diploma undergraduate nursing students, who engaged in the discussion of the experience of receiving RPL, chose to return to the first stage of the BN program to re-learn science. The decision to return to first stage science was to grasp the fundamentals of chemistry, physics, anatomy and physiology, underpinning the concepts of pathophysiology at the second stage of the BN program. Therefore, this study was motivated by the discussion that centred on the advantages and disadvantages of RPL for first stage science. The study provided information about the differing experiences of Diploma undergraduates who articulated between TAFE and university entering the BN program at the second stage and confirmed the views of those who engaged in the discussion related to RPL for first stage science.

Recognition of Prior Learning (RPL)

Recognition of prior learning (RPL) has been part of the Australian education policy for more than ten years and is part of the national vocational education and training (VET) system. RPL provides a means of avoiding duplication of learned knowledge and learned experience (Hargreaves 2006). The Bradley Review in 2008 (DEEWR 2009 p.43) identified the need for transition to occur between vocational education and tertiary education by educational institutions valuing competency based and merit based experience which improves pathways and movement between both sectors.

Receiving RPL involves application to the education institution program in which a student has enrolled. Evidence of previous learned knowledge and/or experience from a recognised education institution or employment based experience is required for assessment by Program Directors responsible for granting applications for RPL through documented evidence from the applicant. Academic credit provision for entry to the BN program varies between universities (CSHITB 2005). RPL for the applicant provides advantage to shorten the length of time spent studying for further career advancement, while at the same time satisfying industry requirements (Hargreaves 2006).

Kenny and Duckett (2005 p.424) cite job dissatisfaction as a reason for ENs pursuing a BN degree. Kenny and Duckett (2005 p.424) further suggest insecurity in the workplace and lack of professional development opportunities as ENs are other reasons given. The role change to RN by ENs has been well documented by researchers (Rapley et al 2008). Many ENs undertake the BN program while remaining in employment as ENs in various health care settings throughout Australia. Rapley et al (2008) suggests many ENs study externally, and the EN pathway through RPL in to the BN program, facilitates a better transition from EN to RN. RPL results in some cost-saving advantages for ENs but at the same time universities miss out on additional funding through exclusion of students enrolled in the first stage of the BN program (DEEWR 2009; Clarke and Wait 1997). Through studying externally the ability to maintain, support and contribute toward the family income is an advantage for the EN who has obtained RPL, (Rapley et al 2006; Field 2002; Pym 1992). However, maintaining an income while studying for career advancement puts pressure on the EN, who is taking on multiple roles as student, spouse, mother/father, caregiver, and employee (Pym 1992 p.383).

METHOD

A survey design of three sections was used to collect data for the study. The first section used a quantitative approach to identify the demographic information of respondents that included years of experience as an EN, age of respondents, distance from the university and TAFE subjects studied in the Diploma of Nursing course. Analysis of data was through using Microsoft Excel. A fourteen question Likert scale was used in the
second section of the survey, that was broken down into four constructs of regret, relating to decisional regret for applying for RPL for first stage science, difficulty, identified difficulty in studying second stage science, advantages attributed to the advantage of receiving RPL for first stage science, and satisfaction related to performance in second stage science. Analysis of the Likert scale was by using the Statistical Package for the Social Sciences (SPSS) version 15 for Windows. Lastly the third section provided qualitative analysis where participants were able to write free text comments to five questions. The questions gave scope for participants to provide feedback about their experiences of entering university in the second stage of the BN program and studying second stage science having made the choice to receive RPL for first stage science.

Student database
Ethics approval was obtained prior to commencing the study and prior to accessing the student database. Approval was obtained from the Dean of the Centre for Regional Engagement and the Head of Unit at the Centre for Regional Engagement, University of South Australia. The student database was accessed by the enrolment officer to identify potential participants who were second and third year undergraduate nursing students with a Diploma of Nursing.

Ethics and informed consent
Ethics approval was sought from the University of South Australia’s Human Research Ethics Committee (HS30-2007), as the study involved undergraduate nursing students in the BN program at the University of South Australia. Anonymity was maintained by an enrolment officer accessing the student database for potential study participants. Research consent was obtained prior to commencing the study following agreement to abide by the guidelines set by the National Statement on Ethical Conduct in Human Research (NHMRC 2007).

RESULTS
Decisional regret
Regret was defined as the tally of Items Q.4, of the Likert scale, Would receiving Recognition for Prior Learning in another area of the Bachelor of Nursing program be better than in science? Q.5, Do you feel not studying first year science in the Bachelor of Nursing program has disadvantaged you? Q.6, Would you have preferred to have studied first year science? Each item was scored between 0 and 4, thus the maximum score possible was 12. The actual mean was 6.82, with a standard deviation of 3.4, and a median score of 7. Skewness was -0.1. Kurtosis (i.e. deviation from normality) was minus 1.0. Hence, these figures show acceptable properties for construct analysis, and it is apparent that decisional regret was measured in a meaningful manner.

Figure 1: Histogram for the variable decisional regret

![Histogram](image-url)
Quantitative analysis was further investigated and broken down using the construct of Regret into Low Regret and High Regret of applying for RPL for first stage science in the BN program. 5 or below constituted Low Regret and a score of 7 or above were rated as High Regret. The result was 15 respondents with Low Regret and 20 respondents with High Regret.

### Table 1: Contrasting Low Regret and High Regret Respondents

<table>
<thead>
<tr>
<th>Construct</th>
<th>Low Regret Group (n = 15)</th>
<th>High Regret Group (n = 20)</th>
<th>F (1,34)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty</td>
<td>6.1 (1.9)</td>
<td>10.6 (4.0)</td>
<td>16.2</td>
</tr>
<tr>
<td>Advantage</td>
<td>5.3 (1.3)</td>
<td>2.6 (1.5)</td>
<td>29.7</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>2.8 (0.9)</td>
<td>2.0 (1.3)</td>
<td>3.5</td>
</tr>
<tr>
<td>Q.1</td>
<td>3.1 (1.1)</td>
<td>1.0 (1.0)</td>
<td>30.6</td>
</tr>
<tr>
<td>Q.2</td>
<td>2.9 (1.0)</td>
<td>1.3 (1.0)</td>
<td>19.9</td>
</tr>
</tbody>
</table>

High Regret respondents expressed higher levels of difficulty than Low Regret respondents, $F(1,34) = 16.2, \ p < .001$. Lower levels of Advantage was shown by respondents in the High Regret analysis of respondents $F(1,34) = 29.7, \ p < .001$. High Regret respondents also expressed lower levels of Satisfaction than Low Regret respondents, although in this case the statistical significance was not as strong, $F(1.34) = 3.5, \ p = .07$. In addition High and Low Regret individuals differed in their responses to Q.1 *How well did the TAFE course prepare you for study of science in the BN program?* and Q.2 *How useful was your prior learning at TAFE in science to current study?* These differences are shown in the table above.

**Perceived difficulty**

The analysis of the construct for perceived difficulty in the diagram shows the distribution of scores, based on answers to the questions in the Likert scale. Questions related to perceived difficulty were:

- **Q.8 Did you understand some of the content of science?**
- **Q.9 Did you understand most of the content of science?**
- **Q.11 Did you need more support in studying science?**
- **Q.12 Did you need to spend a lot of time studying science?**
- **Q.13 Did you feel you were continually struggling to learn in the science courses?**

The actual mean score was 8.69, with a standard deviation of 3.9, and a median score of 8. Since this was obtained through summing four items, the maximum possible was 16. The skewness was 0.07. The kurtosis was -1.08. These figures were regarded as acceptable and, thus, perceived difficulty was being measured in a meaningful manner. This scale has a natural midpoint of 8, thus individuals with a score greater than 8 were rating second stage science as relatively difficult.
**Advantage**

The construct called Advantage was created by summing Items Q.3, *Has receiving RPL assisted you in the BN program in the study of science courses?* and Q.10, *Do you feel that you were advantaged receiving Recognition for Prior Learning in science?* The curve produced is shown in the histogram below. 3.7 was the mean of this construct, with a standard deviation of 1.9 and a median of 4. Skewness was 0.01 and the kurtosis was -0.3. Thus, advantage for receiving RPL was being measured meaningfully.

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**Figure 2: Histogram showing distribution of scores on perceived difficulty**

![Histogram showing distribution of scores on perceived difficulty](image)

**Mean = 8.69  
Std. Dev. = 3.915  
N = 39**

**Figure 3: Histogram of Advantage for receiving RPL**

![Histogram of Advantage for receiving RPL](image)

**Mean = 3.74  
Std. Dev. = 1.916  
N = 39**
Despite responses to other questions in the Likert scale identifying student difficulty in learning science, over half (60%, $n = 24$) of the respondents were satisfied with their overall performance in the science courses. Only 25% ($n = 10$) were not satisfied with their performance in science at the second stage of the BN program. Some of the respondents indicated in the free text questions that they were satisfied with the content of the science course and were able to understand the content, as well as relate theory to practice in some way in the workplace.

**Qualitative analysis**

Qualitative analysis identified some respondents who received RPL expressed a need for access, preferably online, to first-stage science that was provided to first-stage students. They perceived the need for summer school science workshops exclusively for Diploma undergraduates as revision in preparation for the second-stage science content. Many respondents suggested there was a need to increase the time spent on more complex areas of science within the second stage of the BN program. Some respondents identified they worked while studying and found it difficult to manage the coordination of both and keep up with household duties, as well as study. Lastly some respondents expressed that second stage science consumed their lives with not enough time to apply much needed time to other units in the BN program.
DISCUSSION

Cantwell and Scevak (2004) suggest that participating in first-stage science would provide the opportunity for ENs at undergraduate level to revise and enhance pre-learned knowledge, improving academic achievement through the expansion of knowledge in science. With an increase in the acuity of patients in hospitals (Friedel and Treagust 2005 p.203) and with the rapid changes in technology, legislation and environments, the next generation of nurses need to have evidence of scholarly nursing practice (Riley et al 2007 p.426). Therefore, linking scientific knowledge gained at university in the BN program to clinical nursing practice enables the provision of safe nursing care.

The results from this study identified that there are advantages and disadvantages to Diploma ENs receiving RPL for first year science in the BN program. In support of the constructs regret and perceived difficulty findings from this study Wheelahan et al (2004) identified that RPL is not beneficial to everyone given the diversity of university undergraduates being from many different economical, cultural and social backgrounds, who may not have had the ability or facilitation to study at university without the opportunity to obtain a Diploma of Nursing through TAFE, or have not studied science for many years. In further support of the findings of this study that twenty of the forty respondents expressed Decisional Regret for applying and receiving RPL for first stage science, Wheelahan et al (2004) suggest that applicants for RPL may not fully understand what RPL means, and what the requirements are to successful articulation from one learning sector to another.

In addition Decisional Regret could be attributed to the academic ability of Diploma undergraduates. Academic study for some as shown in the results of this study can be difficult and RPL removes the benefits of building on base knowledge of first stage science. Those applicants for RPL experience a disadvantage in studying second stage science in the BN program. The sample number of respondents in this study has therefore, provided some insight into the need for further study in the area of RPL for first stage science to Diploma ENs entering the BN program.

Stakeholder partnerships

The development of partnerships between stakeholders provides and supports learning (Clare et al. 2003 p.67). It is in the interests of institutions in both the Vocational Education Training system (VET) and higher education sectors to open communication to provide course content to Diploma undergraduates that parallels first-stage university bioscience, articulating into the BN program at second stage without any disadvantage to learning. There is a shared responsibility of stakeholders in the commitment of providing value to education in the nursing profession (Clare et al 2003). As Clare et al (2003 p.67) suggest, the service providers within stakeholder partnerships have a responsibility to provide input into RPL policy and procedures as well as participate in curriculum development for Diploma undergraduates by sharing resources and expertise. Such partnerships are possible and the effectiveness of such an endeavour should be further researched.

RECOMMENDATIONS

While RPL provides access to further career advancement in nursing, additional research is required that investigate whether undergraduate ENs use prior learning to reflect upon what is being learned and whether an existing body of knowledge is being built upon (Noonan 2003 p.12). Critical analysis of the RPL process and tracking of progress through the university system are important elements in enabling the identification of the benefits of RPL for science to the academic achievement of ENs in the BN program. Many of the studies reviewed have not identified the impact of RPL nor its advantages or disadvantages to undergraduate ENs specific to the study of science in nursing.
CONCLUSION

This study has extended the knowledge about RPL awarded to ENs with a TAFE Diploma in Nursing, for those making the progression to RN. The data in this study has shown that receiving RPL for first-stage bioscience has meant that ENs enter the BN program at the second stage. Some who receive RPL feel they have a deficit in their knowledge of first stage science resulting in Decisional Regret for their choice to apply for RPL prior to commencing in the BN program. Likewise, this study identified that there is Perceived Difficulty for some Diploma undergraduates in studying second stage bioscience. Qualitative analysis in this study identified that some Diploma ENs in the BN program are better prepared than others to study second stage science and are able to build upon their body of knowledge learned through TAFE.

Receiving RPL for some was an advantage through the reduction in time spent studying for career advancement, and knowledge deficit was not an issue. However, there were disadvantages to RPL for some Diploma ENs who were not required to study first stage science, in that important first-stage course content such as physics and chemistry related to the physiology of the human body was bypassed. The provision of a summer school prior to commencing second stage science was identified as being beneficial for revision of previous scientific knowledge.

REFERENCES


