MODULE NAME:	MODULE CODE:
PROGRAMMING 2A	**PROG6211**

ASSESSMENT TYPE: PORTFOLIO OF EVIDENCE
TOTAL MARK ALLOCATION: 100 MARKS
TOTAL HOURS: 15 HOURS

STUDENT NAME:
STUDENT NUMBER:

INSTRUCTIONS:
1. *No material may be copied from original sources, even if referenced correctly, unless it is a direct quote indicated with quotation marks. No more than 10% of the assignment may consist of direct quotes.*
2. *No assignment with a similarity index of more than 25%, even if the sources are referenced correctly, will be accepted.*
3. *Make a copy of your assignment before handing it in.*
4. *Keep a backup copy of your Portfolio of Evidence before handing it in.*
5. *The PoE must be saved to CD/ DVD.*
6. *All work must be adequately and correctly referenced.*
7. *Follow all instructions.*
8. *This is an individual assignment.*

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1. Experiential Learning

1.1 Kolb's Experiential Learning Cycle

Many models of experiential learning exist. David Kolb laid the foundation of experiential education theory with his well-known model developed from the Lewinian learning cycle. Kolb's experiential learning cycle suggests that there are four (4) stages: concrete experience is followed by reflection on that experience on a personal basis. This may then be followed by the derivation of general rules describing the experience, or the application of known theories to it (abstract conceptualisation), and hence to the construction of ways of modifying the next occurrence of the experience (active experimentation), leading in turn to the subsequent concrete experience. Kolb (1984) emphasises that the model is not static and that students can 'recycle' many times. In addition, students can start their learning at any stage in the sequence. Kolb's experiential learning cycle is graphically presented in Figure 1 below.
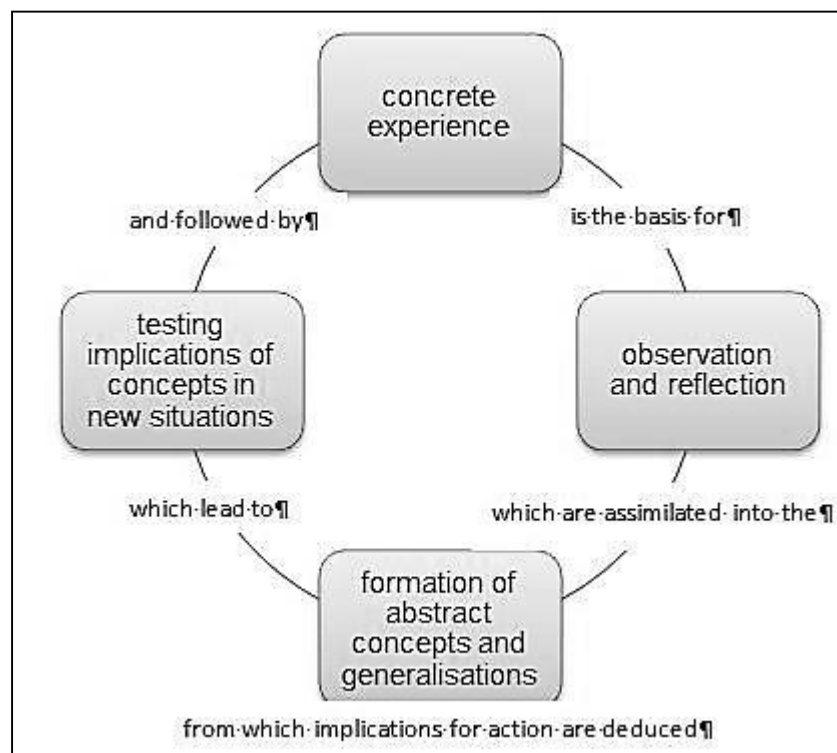

Figure 1: Kolb's experiential learning cycle *(Adapted from: Kolb, D. 1984)*

According to Kolb (1984:41): "Learning is the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping experience and transforming it". Kolb proposes that experiential learning has six (6) characteristic features:

- Learning is best conceived as a process that includes feedback on the effectiveness of students' learning efforts;
- Learning is a continuous process grounded in experience;
- Learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world. Conflict, differences, and disagreement are what drive the learning process. In the process of learning, one is called upon to move back and forth between opposing modes of reflection and action and feeling and thinking;
- Learning is a holistic process of adaptation to the world. It is not just the result of cognition but involves the integrated functioning of the total person – thinking, feeling, perceiving and behaving;
- Learning involves transactions between the person and the environment.
- Learning is the process of creating knowledge (in contrast to a 'transmission model').

The central focus is thus on the felt experience from which learning can be initiated, reviewed, challenged and reconsidered (Andresen et al., 2000). A key element of experience-based learning is that learners analyse their experience by reflecting, evaluating and reconstructing it (sometimes individually, sometimes collectively, sometimes both).

1.2 Reflection

According to Andresen, Boud & Cohen (2000) the distinguishing feature of experiential learning is the central place that the experience of the student takes in all considerations of teaching and learning. It is important to note that students do not automatically know how to learn from experience in a formal context and it is therefore important for lecturers to guide students. One of the ways to assist students to learn from experience is through the implementation of processes such as reflection. In fact, Andresen, Boud & Cohen (2000) identify reflection as key element of learning from experience.

Reflection has been described as a process of turning experience into learning, i.e. exploring an experience in order to learn from it (Boud, 2001:2). Boud, Keogh & Walker (in Boud, 2001:2) say about reflection: "…those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understandings and appreciations".

In previous years this process of reflection (and the report we used to call the reflective report) has baffled students and lecturers. What we want to achieve is to get students to think about what they are doing and to learn from the thinking and doing. Many students can describe what they have done but very few find it easy to think about the doing in a way that increases learning.

It is hoped that through the simple self-evaluation report we will begin to help students to think about (reflect on) their learning.
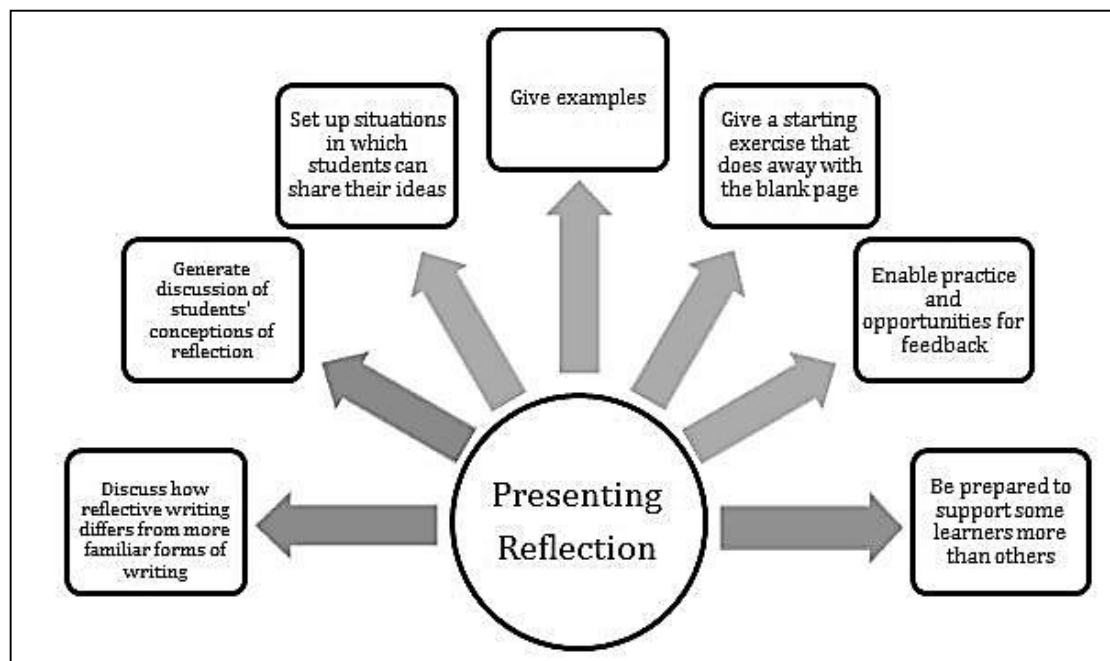
Figure 2: Presenting reflection *(Adapted from: Moon, 2004:136)*

1.3 Portfolio of Evidence

A portfolio of evidence (PoE) is a collection of materials that illustrates a person's skills and capabilities. Through a PoE, students can recognise their own growth and learn new skills. Students can also show possible employers what their capabilities are.

The PoE is the place (usually a file) where students collect together critical documents which they can use for one (1) or both of the following purposes:

- To demonstrate their competence by putting together evidence of what they did, e.g. documentation, flow diagrams, background research, user guides, etc.
- To keep in one place some of the documents they may wish to show a potential employer as evidence of their learning.

Parts of the PoE are required for some modules – the rest are suggestions to enable students to put together a work readiness portfolio that will help them in their job seeking.

1.4 Self-Learning Evaluations

The contribution of the reflective reports (now called 'self-learning evaluations') needs to be standardised to support equal attention to the reflective skills all students should be developing.

1.5 Timing and Assessment Points

- The final submission of the portfolio (including self-evaluations) will be after the 12 weeks – normally in week 13;
- Only where relevant for work placement, the final PoE for a module should only be accepted for marking once ALL the required documentation is in place;
- Mark allocation breakdowns:

YEAR	Self-evaluation	PoE	TOTAL
2	10%	90%	100%

- Portfolios that do not achieve a 50% mark:
  - One (1) resubmission is permitted (as if it was a supplementary examination on a portfolio for an academic module). The resubmission mark will be capped at 50%;
  - If 50% cannot be awarded, the module will need to be repeated;
  - If this is the last outstanding graduation requirement, the normal rules for special exams apply and that means students may resubmit a third time and the mark is capped at 50%. If they do not achieve this mark, they will need to repeat the module.

1.6 References:

Andresen, L., Boud, D. & Cohen, R. 2000.Experience-based learning.In Foley, G. (Ed.). *Understanding adult education and training*. Sydney: Allen and Unwin, 225-239.

Boud, D. 2001. Using journal writing to enhance reflective practice.In English, L.M. & Gillen, M.A. (Eds.).*Promoting journal writing in adult education*.New Directions in Adult and Continuing Education No. 90. San Francisco: Jossey-Bass, 9-18.

Kolb, D. 1984. *Experiential learning: experience as the source of learning and development.* New Jersey: Prentice-Hall.

Moon, J.A. 2004. *A handbook of reflective and experiential learning: theory and practice.* New York: RoutledgeFalmer.

2. Portfolio of Evidence Requirements

The Portfolio of Evidence (PoE) is a complete stock control system as progressively developed through the execution of Assignments 1 to 3 for PROG6211 which must include the improvements suggested by the lecturer in the feedback provided for each assignment. As part of your submission you must include all documentation and the original C# applications for each Assignment, as well as the final stock control application. The final stock control application should comprise of the improved, integrated C# applications that were developed for Assignments 1 to 3 and should be a complete stock control system for your chosen business. Categorise your CD/ DVD submission documentation in folders e.g.

```
POE PROG6211 - Student Number 9999
    Assignment 1
        Application
        Documentation
    Assignment 2
        Application
        Documentation
    Assignment 3
        Application
        Documentation
    Final Stock Control System
        Application
        Documentation
    Self Evaluation
```
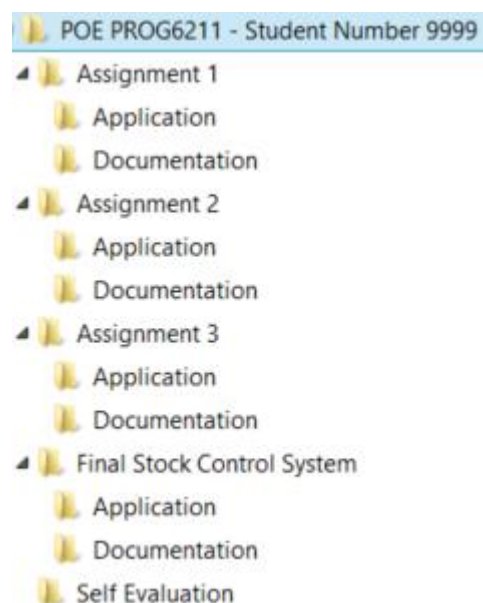
In addition to the C# applications and documentation related to the 3 assignments and the final stock control system, each student should also complete a self-evaluation to reflect on their learning experience.

(Each student must receive <u>detailed</u> feedback on their assignment submissions in order to complete their PoE with improvements on their C# applications. This feedback must be included in the student's PoE and the recommended changes must have been implemented.)

3. Summary Sheet

ITEM	DESCRIPTION
Hours	15
Co-requisites	PROG5111, PROG6112, PRLD5111
Group/ Individual Work	Individual.
Module Purpose	The aim of this module is to provide students with an introduction to a multi-purpose object oriented programming (OOP) computer programming language. Students are taught the language fundamentals as well as the more advanced OOP development features. An in-depth understanding of predefined structures, objects and classes as well as object-oriented programming techniques are covered.
Assessment Structure	Project Mark = 90% Self-evaluation = 10% The pass mark for this Portfolio of Learning module is 50%.
Outcomes	On successful completion of this module, students should be able to: MO1 Demonstrate comprehensive knowledge and understanding of concepts, terms, definitions and data manipulation within an object oriented programming (OOP) language. MO2 Use a variety of OOP software application tools and techniques to solve given problems. MO3 Apply OOP principles to communicate information accurately and effectively with the end user. MO4 Demonstrate correct OOP code testing and debugging. MO5 Document and comment on OOP code correctly and efficiently to facilitate code maintenance. MO6 Write simple Windows applications to communicate information accurately and effectively with the end user.

ITEM	DESCRIPTION

Summary Of Activities	The student needs to submit on a CD/ DVD:
	• A 2 – 3 page self-evaluation to reflect on their learning experience;
	• <u>All</u> of the following for <u>each</u> of their submitted assignments (3 assignments), as well as the final stock control system:
	   o Specifications for the assignment (explains the functional requirements and purpose of the application);
	   o All documentation for the assignments (flowcharts, UML diagrams etc.);
	   o Test data used to test the applications with (include screenshots of the running application);
	   o Help file with instructions on how to use the application.
	   o The feedback received on the 3 assignments from the lecturer and a write-up of how each application was improved on from the previous submissions in order to develop the final, integrated stock control system;
	   o The improved, integrated stock control system that was developed from the applications developed for the 3 assignments.

Tools & Resources	• CD/ DVD (to write the PoE to) • Visual Studio .NET
Additional Information	Final deadlines are as follows: <u>Week 10</u>: Final completed student portfolios must be submitted by the end of Week 10. This means that the final activity must be completed by Week 9. This will allow students a week for the final compilation of the portfolio. <u>Week 11</u>: Feedback on portfolios to be given to students and final changes made. <u>Week 12</u>: Lecturer to submit the final assessed portfolios and mark sheets. ***Note: The above submission dates are subject to operational issues on the sites and some flexibility may be granted by the lecturer.***

4. Marking Scheme

An additional mark allocation for each assessment/ deliverable in the following table has been further explained below. Please have a look at these while completing each deliverable.

Assessment

Assessment/ deliverable	Format	Marks	Weighting
Self-Evaluation	Document	10	10%
Specifications of each application/ assignment	Document	10	10%
Documentation (flowcharts, UML Diagrams) for each application/ assignment	Document	30	30%
Help files	Document	15	15%
Screenshots	Document	5	5%
Application Development	Improved final stock control system written in C#	30	30%
Total Mark			**100%**

Self-evaluation = 10% of Total Mark

2.1   PoE Marking Scheme

1.   Self-Evaluation Document   **(10)**

Criteria	1 You've learned something – but you're not proving it!	2 You're on the right track but you can do better!	3 Bravo! You've done exceptionally well!	Score
Reflection	• Reflection shows no thoughtfulness. • Reflection has no details. • Reflection is incomplete.	• Reflection shows little thoughtfulness. • Reflection has few details or examples. • Most parts of the reflection are incomplete.	• Reflection shows thorough thoughtfulness. • Reflection has several supporting details and examples. • All parts of the reflection are complete and done well.	
Demonstration of learning	• Reflection does not move beyond description of the event/ experience.	• The reflection demonstrates student's attempt to analyse the event/ experience but fails to demonstrate depth of analysis.	• Clearly explains what was learned. • Reflection is beyond simple description of event/ experience to an analysis of how it contributed to learning and understanding.	

Criteria	1 You've learned something – but you're not proving it!	2 You're on the right track but you can do better!	3 Bravo! You've done exceptionally well!	Score
Organisation of report Clarity of report	• Ideas are disorganised. • Language is unclear and confusing throughout.	• Ideas are organised but paragraphs are not well constructed. • Frequent lapses in clarity.	• Ideas are very well organised with well-constructed paragraphs. • The language is clear and expressive. • The reader can create a mental picture of the situation being described. • Explanation of concepts makes sense to an uninformed reader.	
Inclusion of lecturer's feedback on Assignments 1 -3 (1 mark)				
TOTAL				**/10**

2. Specifications of each application (10)

(The student should explain the functional requirements and purpose of the application for each of the 3 assignments. The students must arrange their portfolios in a logical order and group all the specifications, documentation and the C# application together for each of the 3 assignments.)

3. Documentation (flowcharts, UML Diagrams etc.) (30)

(Documentation must be stored together with all the relevant documents per app – there are 3 applications)

- **Flowcharts (9)**

  (Award 3 marks per application for completeness and logic flow)

- **UML Diagrams (9)**

  (Award 3 marks per application for completeness. An attempt should have been made to submit at least 1 UML diagram per application. E.g. class diagram)

- **Other documentation (6)**

  (Award 2 marks per application for completeness. Any other documentation may be provided or specified by the lecturer for inclusion into the PoE.)

- **Comments in programming code (6)**

  (Award 2 marks per application for completeness. Comments in the programming code should include the description of variables, methods and logic)

4. Screenshots (5)
- **Screenshots for each application (3)**
  (Award 1 mark per application for screenshots)
- **Explanations of screenshots (2)**
  (Overall each screen shot should have a label/caption identifying it and its function)

5. Help files (15)
User instructions for each assignment
(Award marks at your discretion for a help file/ user instructions on how to operate each of the 3 C# applications)

6.   Application Development   (30)

- **GUI**   **(9)**

  (Award maximum 3 marks for each assignment - the overall look and feel of the GUI must be taken into consideration. Use the criteria listed below to evaluate the GUI).
  - o   Layout (looks);
  - o   Friendliness;
  - o   Menus;
  - o   Forms;
  - o   Navigation.

- **Front-end to back-end links**   **(15)**

  (Do the applications provide a solution to the question? When required is data entered, displayed? Is the logic and efficiency of the code correct? Award maximum 5 marks per assignment at your discretion)
  - o   Enter new data (new, update, delete, requests).
  - o   Display results (on screen).
  - o   Back-end results.

- **Visible improvement on previous submissions**   **(6)**

  (Was the feedback provided by you the lecturer taken into consideration and were improvements made on the submitted assignment applications? Use your discretion when awarding marks. Maximum 2 marks per assignment as reflected in final stock control system.)

Total Mark Allocation for Project Presentation: **/100**

Final Percentage	%