

## **An Approach to Improving the Learning Experience for First Year Accounting Curriculum**

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### **ABSTRACT**

The purpose of this paper is to present a theoretical model to address design and assessment of accounting practice sets that will enhance learning and provide clearer learning outcomes for first year accounting students. The paper explores extant literature in developing an action plan that can be followed to maximise learning outcomes for first year accounting students when completing an accounting practice set assessment. Given the wide use of accounting practice sets a model for addressing issues of design and assessment are an important contribution to the accounting education literature.

**Keywords:** First year accounting; accounting assessment, higher order mathematical skills, emoticons, mnemonics.

**JEL Classification:** A22, C02

**PsycINFO Classification:** 3530

**FoR Codes:** 1302; 1501

## Introduction

First year accounting education is now confronted with the need for a teaching strategy that can improve learning outcomes in an era when the cohort of students come from such a diverse background. Student diversity can be classified into two closely interconnected categories namely previous experience and age. The level of experience of a typical first year accounting cohort ranges through from students with almost no familiarity with the subject to those who have gained experience in a high or technical school situation and to those who have practical bookkeeping credentials. This has been the case in the first year accounting course at the University of the Sunshine Coast over the past. Enrolments are accepted from students across the broad spectrum of the experience continuum. This can be problematic in setting teaching and learning activities that have a broad appeal across the spectrum.

Assessment of a student's learning achievement is done by using a variety of items. This gauging of learning uses elements such as multi-choice online examinations, comprehensive accounting practice set and a final invigilated examination. Although the comprehensive practice set is used as a measure of achievement and the student's result goes to their final grade, perhaps a greater value can be placed in its role as a teaching mechanism. This instrument deals with recording the transactions of a business in the appropriate journals, posting to the relevant ledgers and taking the values of those ledgers to a trial balance. From the values in the trial balance students construct General Purpose Financial Statements (GPFS). Using information from the reports then allows students to comment on the viability of the business by using business ratio analysis.

As the accounting profession experiences the impact of technological change diversity of age has also become an issue for students as they contemplate opportunities for them upon graduation. Research by Blayney, Kalyuga, & Sweller (2010) indicated that older students in an first year accounting course tend to have less experience in using new information technologies as do those students who have recently left school. As accountants in the workforce require a high skill level, teaching plans must be designed to introduce the technologies.

## Compliance with Regulations

In setting assessment items course coordinators are somewhat hamstrung by having to adhere to mandatory requirements required by three influential groups. These groups are Tertiary Education Quality and Standards Agency (TEQSA), the industry professional bodies and university policy. TEQSA have determined the attributes that graduate accountants should possess  
["www.abdc.edu.au/download.php?id=325154,282,1"](http://www.abdc.edu.au/download.php?id=325154,282,1).

The professional accounting bodies in Australia namely, the Institute of Chartered Accountants in Australia, CPA Australia and the Institute of Public Accountants have developed a mutual standard that graduate students must achieve to be eligible for membership to their respective organisations.

## Process Simplification

There is an abundance of literature suggesting that learning achievements are best obtained by simplification of the task to its basic elements (Blayney et al, 2010; Johnson & Slater 2012). In accounting the base element of the system is a transaction which should be recorded in its relevant journal. In accounting the relevant journal is determined by the type of transaction that is being recorded. There are seven journals

that may be used within an accounting system and these are: the general journal, cash payments journal, cash receipts journal, sales journal, sales returns journal, purchases journal, and purchases returns journal. Each journal requires the identification and application of the double entry system where in the debit amounts must equal the credit amounts. For the purpose of the model being developed in this paper the consistency between the amounts in the debits and credits for each transaction will be referred to as a "Balance". Within the journals each balanced transaction is simply a component of the record for the transactions in a particular month in a particular journal, each journal must be checked to confirm that the total debits is equal to the total credits and if this test is satisfied then the balances from each column can be posted to the relevant General Ledger accounts. It should be noted that for the general journal, transactions are posted not from a total amount in a column but from each journal entry and for miscellaneous accounts in the other journals these need to be dealt with individually. Proponents of breaking down processes into simple steps - a simplification approach, (Blayney et al 2010: Johnson & Slater 2012: Wilken & Collier 2009) advocate that if learning is promoted by way of a repetitive system of basic elements using a scaffold to plot progress the level of learning should prove to be more than sufficient for the student to tackle complex problems.

### **Obtaining Computer skills**

The actual method for delivering an accounting practice set was addressed by Blayney (2008). In recognising that mature age students can be lack in computer skills, Blayney (2008) suggested that there were two prospective incentives that encourage the use of spreadsheets. Firstly, the accuracy that could be achieved by marking directly on the spreadsheet and secondly, the ease with which feedback can be given. He advanced a practical concept that at every opportunity students should be encouraged to use computer based spreadsheets such as Microsoft Excel. By setting a practice set in Excel lecturers can assist students achieve a higher level of competency that will be highly desired attribute when students move into the workforce (Blayney, 2008). Craddock (2012) emphasised that with the implementation of the National Broadband Network (NBN) students will require even higher computer skills to access and use available suites. If Excel is used as a platform one of the built in functions, the IF Statement, can be utilised to reinforce the ideal of the "Balance". Pre-prepared calculations in each journal to give the student immediate feedback to ascertain each transaction and therefore the whole journal is balanced before posting to the trial balance. Flynn, Concannon & Brechain (2005) recommend that emoticons such as a smiley face ☺ (see cells A14 and C14 Figure 1) for balanced and or a frowning face ☹ can be utilized as feedback.

**Figure 1:**  
A *Balanced Cash Payments Journal*

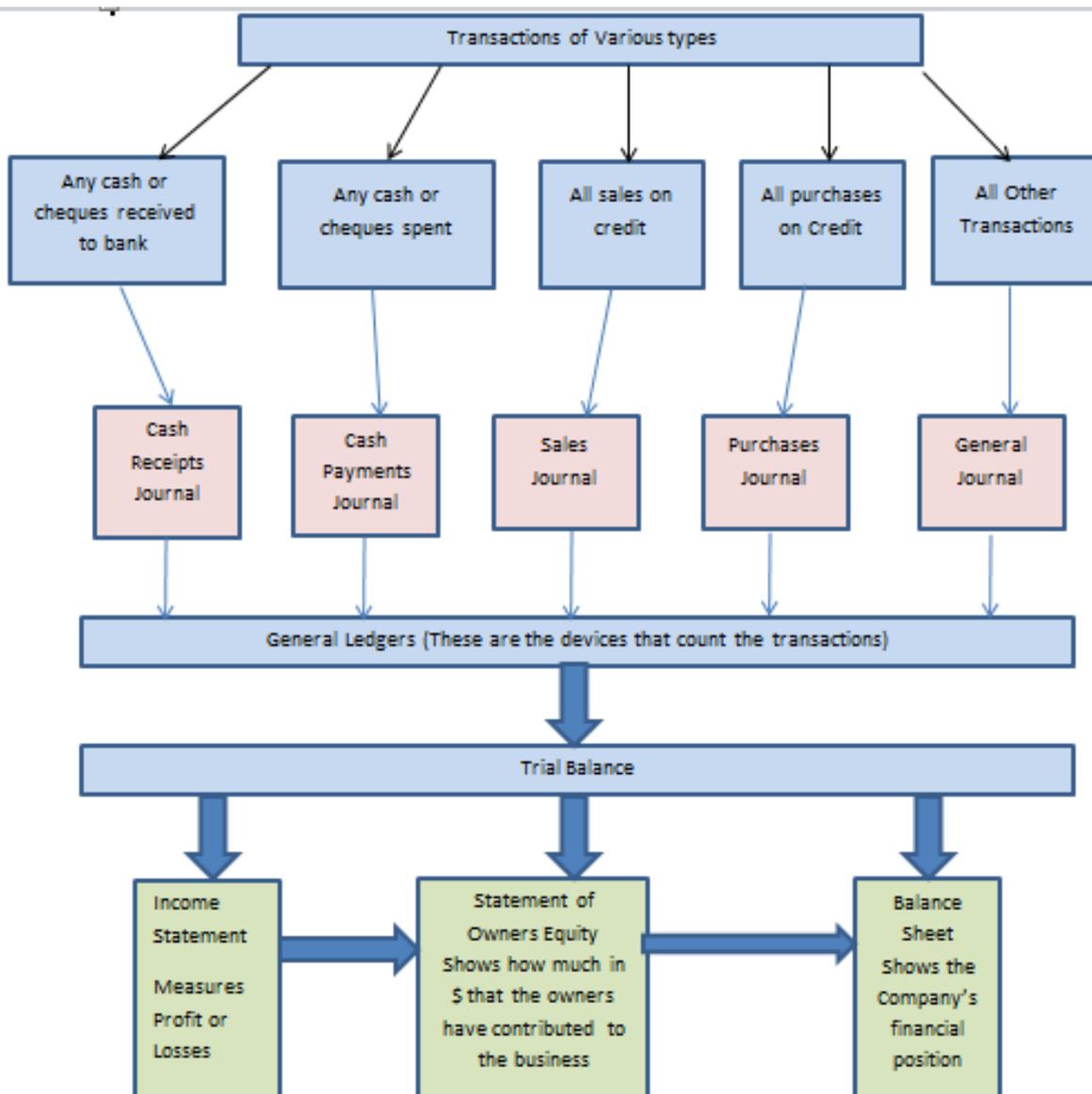
CASH PAYMENTS JOURNAL—JUNE													
Date	Details	Cheq no	Post Ref	Credits				Debits					
				Cash at Bank	Discount Revenue		Accounts Payable "Creditors" Inc GST	Supplies	Rent	Other Accounts		GST Paid	
					GST	Net				Account Number	Amt ex GST		
3	Mudjimba Realestate	10401		440					400			40	
8	SunStroke Insurance	10402		1320						Dr 1015	1200	120	
18	Barber Supplies	10403		33			33						
23	Barber Supplies	10404		165				150				15	
				1958	0	0	33	150	400			1200	175
				Cr 1000			Dr 2000	Dr 1010	Dr 6000				Dr 2010
Balanced				Instructions: Total each column in row 12 except column L. If you enter the transactions properly the Journal should be in balance In Row 13 Indicates the account and which side of that account that you will be posting the total to. In column K use the same naming as row 13. At End of Month (EOM) go to the named accounts and to the Dr or Cr side and using the equals = sign bring the values down to that account.									

If higher level computer skills can be attained by all students in the cohort online forums can be utilised to assist with the learning process. It is essential that all students have achieved a level of competency that allows full participation. Similar methods to gain skills using scaffolding of transactions can be employed to raise the level of computer competency (Mihhailova, 2009). Textbooks used as reference material commonly provide students with access to an online teaching facility (Pergola & Walters, 2011). In examining results achieved by students using this facility Baxter & Thibodeau, (2011) found that the students irrespective of self-rated skill levels achieved considerable better results than students with equally self-rated skills who did not participate in the online delivery process. Students involved in the online process were found to require less assistance from tutors and lecturers. The need for less contact with support staff was identified by students involved in a study by Pergola & Walters, (2011), to be due to the immediate feedback available online.

### Concept Mapping

Students who lose sight of what the impact transactions have in an accounting practice will find assistance by the use of diagrams particularly concept maps (see appendix 3). Chang and Chang (2008) found that a concept map is a very effective addition to the use of a step by step approach. They propose that having students prepare the map themselves will instil a more comprehensive knowledge of the subject and align that knowledge with that of deeper learning. This concept is also supported by Maas & Leaby (2009) who describe concept mapping as an enriching learning tool that promotes superior student understanding of complex problem solving. Davies (2011) supports concept mapping as a tool to enrich understanding and proposes the use of software to construct maps.

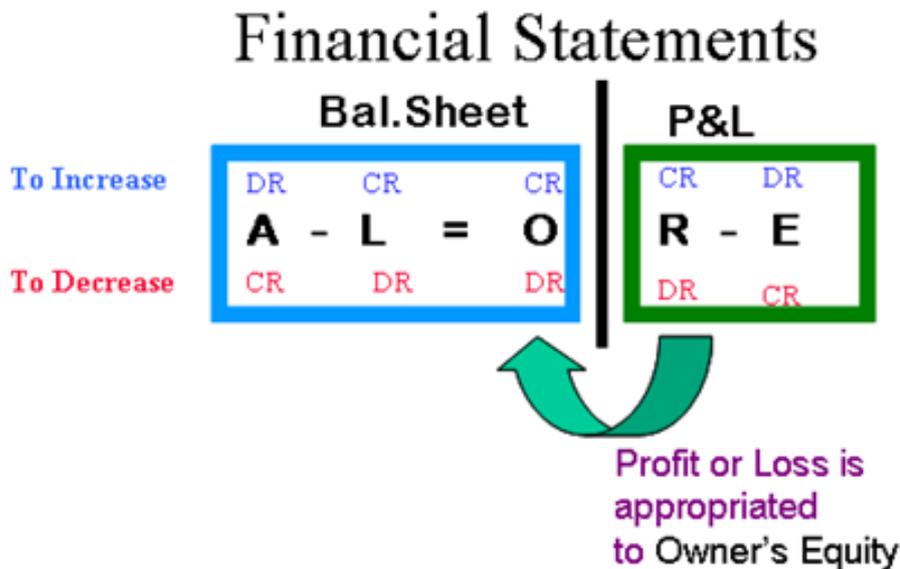
**Figure 2:**  
*A Transaction Concept Map*



## Mnemonics

Another technique to assist learning is the mnemonic. Laing (2010), in promoting their use, investigated the evolution of what he considered an underperforming mnemonic PALER to a more comprehensive ALORE, detailed in Figure 3. The letters ALORE are substitutes for the categories of ledger accounts, Assets, Liabilities, Owners Equity, Revenue and Expenses. Students are told that accounts with a normal debit balance are on the outside (A & E) and that if the transaction being considered were to increase the account they should debit it. The opposite applies to the centre accounts (L, O & R) where to increase them a credit is required.

**Figure 3:**  
*Depiction of the Mnemonic ALORE*



Source: (Laing, 2010)

The evolution to ALORE allowed separation of the ledger accounts into their final destination on the GPFS's. The use of ALORE compliments the basic level approach as described in scaffolding and also helps provide direction in the construction of a concept map. Like scaffolding, mnemonics can be useful as a tool to explain complex concepts (Seay & McAlum 2010). Boers, Eyckmans & Stengers (2007) advocate that rather than just being a memory tool a mnemonic can also provide an insight into the meaning of a system. Research presented by Bakken & Simpson (2011) endorses the findings of Boers et al, (2007) and Laing (2010).

### Choosing a approach

There is no quick fix or one size fits all fix to overcome all problems students have identified as impediments to their learning. The action plan proposed should help assist all students in the cohort regardless of experience to achieve required outcomes.

Several concepts to assist student learning have been revealed from the literature. Each of the philosophies explored, namely concept mapping, step by step scaffolding, online forums and mnemonics will provide students with techniques to enhance their learning prospects. Whereas all will enhance learning, certain barriers identified such as inexperience with accounting systems and the lack of immediate feedback can only be eliminated reducing the complex system to basic units.

Mnemonics can perform a valuable role in identifying treatment of transaction and provide limited usefulness with which specific journal should be used. Concept mapping certainly can provide the big picture of the system but fall short on the need identified to improve computer skills. Results from research shows online learning is an accepted method to enhance learning but the major shortcoming is that it excludes those in the cohort who lack suitable computer skills.

Of the concepts, using a step by step approach of scaffolding will be the most benefit to students in their quest to unravel the complex problems that can arise in

accounting courses at university. As a bonus, if the Excel spreadsheet is utilised the all the students in the cohort will enhance their computer skills. This increase in skill will allow the students to access online material available with textbooks. The use of emoticons can provide students with the immediate feedback that they identify as so valuable. There are two added bonuses if practice sets use Excel spreadsheets. These are students requiring less assistance from academic staff and the ease of marking a document that is computer generated.

## Action Plan

An action plan to resolve the issue will by necessitation consist of several steps. The devices of delivery are the lecture of two hours duration, a one hour tutorial and full practice set as assignment material. A conscious effort must be made to establish alignment between the three devices and begins by using the full practice set as its foundation.

**Step 1:** This to provide students with a practice set using specific pre-set journal templates in Microsoft Excel as the method of delivery and consist of two months transactions.

**Step 2:** Requires an incremental submission of the first month's transactions in the form of a relatively simple sole trader and just uses the simple format of the General Journal to complete the transactions and construct the financial reports. It is imperative that there is a prompt return of the marked work so as to allow feedback at the end of and give the student time to reflect on their performance and an opportunity to correct any mistakes.

**Step 3:** This requires students to use the same figures from the first month but use the special journal format. Results should be the same as step 1 with just a format change.

**Step 4:** This will introduce new transactions and a new framework of a partner joining the sole trader. Students should now have the skills to analyse the new material and experience in the techniques required to complete the task.

An important part of the plan will deal with the lecture. It should be regarded as obligatory that practical demonstrations of the tasks that are needed to complete each stage of the practice set are presented. Due to restrictions on printing and some students participating in lectures via blackboard, materials to be used should be made available to students at least one week before each lecture. Each student will then have the opportunity to fully participate either on a printed version or on their own personal computer or tablet.

## Conclusion

Implementation of the prescribed action plan should enable all students to have an effortless entry into the world of accounting while gaining the required computer skills for the business world which will be their ultimate destination. The action plan provided is not rigid but can be modified to suit specific requirements of accounting academics. It is provided as an impetus to have academics deconstruct their own practices with a view to improving their own methods of delivery.

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