

THE RIGOR OF IFRS EDUCATION IN THE US: ANALYSIS, REFLECTION AND INNOVATIVENESS

Aldys Tan

School of Accounting
Curtin Business School
Curtin University
GPO Box U 1987
Perth, Western Australia 6845
Fax: +61 8 9266 7196
Email: aldys.tan@student.curtin.edu.au

Bikram Chatterjee¹
School of Accounting and Finance
Charles Sturt University
Locked Bag 588
Boorooma Street
Wagga Wagga, NSW 2678
Phone: +61 2 6933 2470
Email: bchatter@csu.edu.au

Susan Bolt
Curtin Business School
Curtin University
GPO Box U 1987
Perth, Western Australia 6845
Phone: +61 8 9266 4029
Fax: +61 8 9266 7206
Email: susan.bolt@cbs.curtin.edu.au

¹ Corresponding author.

THE RIGOR OF IFRS EDUCATION IN THE US: ANALYSIS, REFLECTION AND INNOVATIVENESS

ABSTRACT

International Financial Reporting Standards (IFRS) are accepted throughout the world; particularly in the European Union (EU), Australia, New Zealand and Canada. Emerging economies, also, are aligning their practices with IFRS. Historically, the US has been cautious about accepting IFRS. However, following acceptance of IFRS worldwide, the US SEC has recently allowed the filing of IFRS-based financial statements from foreign issuers and is presently considering the same from domestic issuers. Due to lack of IFRS education and training in the country, concerns have been expressed about such moves of the US towards IFRS. Following such concerns the aim of the present study is to review previous literature on IFRS education to reflect on the present status of IFRS education in the US. The research method includes a review of past literature on IFRS education in the *Business Source Complete* database from 2001 to 2012. In line with the review this study reports that active learning approaches that stimulate critical thinking and judgement skills of students are the best methods to teach IFRS. The studies reviewed also report the lack of teaching materials, including software and technologies, to effectively teach IFRS. The only active learning strategies advocated in previous studies were the use of case studies and real life examples. Additionally, this study advocates the use of problem-based learning strategies. This study also reports the lack of research investigating students' and educators' perceptions of available resources and approaches. Future studies are suggested in this direction, employing surveys and interviews.

Key words: IFRS, US, higher education, pedagogy, problem-based learning

THE RIGOR OF IFRS EDUCATION IN THE US: ANALYSIS, REFLECTION AND INNOVATIVENESS

1.0 INTRODUCTION

The International Accounting Standards Board (IASB) has been very successful in meeting its objective of convergence of the accounting standards of respective countries with the International Financial Reporting Standards (IFRS), particularly in the last 10 years (IFRS Foundation 2011). The worldwide acceptance of IFRS is evidenced in 120 countries and reporting jurisdictions permitting or requiring IFRS for domestic listed companies and 90 countries fully conforming to IFRS (AICPA 2013). The adoption of IFRS has not been confined to developed nations. It is also adopted in developing nations with limited accounting standard-setting and application experience. IFRS have been used by listed European Union (EU) firms to prepare consolidated financial statements since 2005, Australian firms since 2000, New Zealand since 2007 and Canadian firms since 2011. Also, Chinese and Japanese accounting practices are converging with IFRS (see for example, Deloitte Global Services Limited 2011; IFRS Foundation 2011).

Although the acceptance of IFRS in the United States of America (US) has been limited (Irvine 2008), recent acceptance of IFRS by the US Securities and Exchange Commission (SEC) for foreign companies listed on the US SEC indicates cautious acceptance of IFRS in the US. The concept release issued by the US SEC in 2007 requesting comments on the proposal to allow US issuers to prepare financial statements in accordance with IFRS (SEC 2007b) further indicates the willingness of the US SEC to accept IFRS. Analysis of comments received in regard to this exposure draft also indicates considerable support for this proposal. However, comments received by the US SEC in regard to the proposal suggest that respondents were concerned that allowing IFRS to US domestic companies will lead to concentration of audit by the Big Four accounting firms, as accountants in the US lack IFRS education and training (Pawsey, Brown & Chatterjee 2011). In this regard 'IFRS education' refers to the education of IFRS accountants effectively (IFRS Foundation 2013). Such effective IFRS education needs to include

development of critical thinking and judgement skills (Conrod 2010; Jermakowicz & Hayes 2011; Lopes 2011) in contrast to mainly technical skills for effectively applying US Generally Accepted Accounting Principles (US GAAP). In spite of concerns about the lack of IFRS education by US accountants, there is significant support for IFRS in the US. The issue of the concept release for public comment was followed by the issue of a roadmap by the US SEC to potentially allow US issuers to prepare their financial statements following IFRS in 2014 (SEC 2009). The SEC (2012) further emphasised the need for a single set of high-quality standards and minimised differences in the application of IFRS across countries. Their study reports that US institutional and professional investors who invest in foreign companies are aware of the IFRS. On the contrary, investors who mainly invest in US domestic companies lack IFRS education. The latter group is reluctant to commit towards IFRS education until IFRS is adopted for US domestic companies. Concerns were also expressed about IFRS readiness of accountants in Albania, Canada and Brazil (Conrod 2010; Lopes 2011; Shkurti & Naqellari 2010).

Considering the reporting of widespread concerns about the readiness of accountants to apply IFRS, the aim of the present study is to review previous literature on IFRS education to reflect on the present status of IFRS education in the US. The review delineates possible challenges faced by accounting educators in countries adopting IFRS, especially in the US, and outlines strategies and teaching approaches – such as Problem-Based Learning (PBL), Process-Oriented Guided Inquiry Learning (POGIL) and Peer-Led Team Learning (PLTL) – to deal with such challenges, aiding smoother, timely integration of IFRS in the accounting curriculum at the undergraduate and postgraduate level. In this regard, ‘accounting curriculum’ refers to the set of courses that comprise the accounting program. Hence, teaching strategies such as PBL, POGIL and PLTL need to be included in subjects taught as part of an accounting program. However, strategies may vary depending on whether the accounting program is undergraduate or postgraduate considering the different learning outcomes.

Section two outlines the research method. Section three delineates the current status of IFRS integration in accounting curricula in various countries with particular emphasis on the US. Section four outlines the

approaches to teaching IFRS, while section five discusses the barriers to implementing IFRS education. Section six proposes alternative teaching methods to facilitate learning of IFRS. Section seven presents the conclusion, and section eight outlines the limitations and directions for future research.

2.0 RESEARCH METHOD

The present study reviews past literature in the area of IFRS education from 2001 to 2012 in *Business Source Complete* database. *Business Source Complete* is a comprehensive business database. It includes more than 1600 peer-reviewed journals, 1500 trade journals and business magazines, and includes collections that date back to 1886 (<http://www.csu.edu.au/division/library/find-info/databases/subject/business>). The rationale behind the selection of this time period is the establishment of IASB in 2001. Key words such as 'IFRS', 'education' and 'accounting' were used to search for past literature. The search revealed 45 research papers. These are outlined in the Appendix.

Considering the aim of this study that is, to review previous literature on IFRS education, 'textual analysis' was adopted as the research method. Textual analysis is a qualitative method (Fursich 2009) that is open-ended, involving the identification of preferred positions of authors (Dow 1996). The analysis is based on semiotic, narrative, genre or rhetorical approaches to qualitative analysis and presents analysed text as the evidence for overall argument (Fursich 2009). Textual analysis is deeper than quantitative content analysis and overcomes the limitations of the latter, which requires categorising texts into quantifiable units of analysis (Fursich 2009), such as a sentence, word, group of words, a paragraph, or an entire document (GAO 1982). Instead, textual analysis brings out inherent meanings, assumptions and omissions in a text (Fursich 2009) to present the arguments. Textual analysis is also known as text-based analysis, thematic analysis, critical discourse analysis and ideological analysis (Pawsey, Brown & Chatterjee 2011).

Similar to previous studies using textual analysis (Entman 2003; Shan & Nah 2004; Steeves 1997) the present study adopts this method to categorise previous literature into themes. Following the categorisation of texts in previous studies, four themes were identified:

- current status of IFRS integration in national curriculum
- approaches to teaching IFRS
- barriers to implementing IFRS education
- proposed teaching methods to facilitate learning of IFRS.

The analysis drew on learning theories from educational literature to inform discussion in relation to teaching methodologies appropriate for IFRS education. In particular, this study is informed by constructivist, humanist and social learning principles and is aligned with adult learning theory. The adoption of approaches to teaching based on such principles and theories provides the greatest opportunities to actively engage adult learners, and facilitates opportunities for learners to learn from experience through debate, exploration and problem solving activities (Stewart 2012).

3.0 CURRENT STATUS OF IFRS INTEGRATION INTO NATIONAL CURRICULUM

The urgency of integrating IFRS education in the national curriculum was suggested in a large number of studies (James & Blaszczynski 2010; Martin et al. 2008; Paul & Burks 2010; Shkurti & Naqellari 2010; Thomson 2008; Zhu et al. 2011). Such suggestions are in line with the recent acceptance of IFRS-based financial statements by the US SEC for filing by foreign issuers and concept release by the US SEC for public comment in 2007 in regard to allowing US domestic companies to prepare their financial statements following IFRS (SEC 2007b). The concept release in 2007 was followed by the report of SEC (2012) further emphasising the need for a single set of high-quality standards worldwide. In 2009 the US SEC published a roadmap for possible acceptance of IFRS from US domestic issuers from 2014 (SEC 2009). A survey of 500 US accounting professors in 2009 reported the need to incorporate IFRS in the

national curriculum (*Accounting Today* 2009). Similarly, the significance of implementing IFRS education much before the adoption of IFRS in the US, Canada and Albania was suggested in previous studies (James & Blaszczynski 2010; Martin et al. 2008; Paul & Burks 2010; Shkurti & Naqellari 2010; Zhu et al. 2011). On the contrary, Haber (2010) did not advocate the inclusion of IFRS in the curriculum of US universities. The reason behind such a suggestion by Haber (2010) was that, as accounting is an evolving discipline, accountants should be able to adapt to changes without the need for formal training. A second reason behind such a suggestion of not instigating formal training by US accountants in IFRS is similar to IFRS, US GAAP is also principles based. US GAAP is based on principles of relevance, reliability and comparability, and gradually emerged as a rules-based approach over time due to an increase in rules in US standards (Schipper 2003).

Contrary to Haber's (2010) suggestion, several authors suggested the need to train future accountants in IFRS as the standards are based on a conceptual framework requiring application of judgements in contrast to the rule-based nature of US GAAP (Bagranoff 2010; Barth 2008). Bagranoff (2010) asserts that adding the IFRS to the current education system requires a lot more than just learning a few new rules as IFRS are concept-based and require enhancement of students' critical thinking skills. Considering the conceptual framework-based IFRS, Barth (2008) suggested that the teaching of IFRS to students needs to focus on teaching concepts and enhancing students' judgement skills in applying such concepts, in contrast to teaching rules. Reporting standards framed by the IASB aid in applying the principles in specific contexts. In order to acquire such skills of applying principles, Barth (2008) suggested the need to understand theories that underlie financial reporting, including micro- and macro-economics and finance. Hence, though it may be challenging to incorporate all micro- and macro-economics and finance theories in accounting curricula, some overview of such theories will facilitate students' application of IFRS. The IASB conceptual framework comprises three main qualitative characteristics – relevance, materiality and faithful representation (IASB 2013). Applying IFRS requires consideration of these characteristics. In such application, consideration is also given to cost-benefits. Students need to acquire

skills in applying judgements to be proficient in applying IFRS. Hence, accounting education needs to shift from rules-based teaching to a principles-based one that enhances students' judgement skills (Barth 2008). Considering the need for students to exercise judgements in applying IFRS, rather than only technical skills, learning outcomes need to include the development of critical thinking skills in contrary to mainly technical skills required to apply US GAAP. Pounder (2011) advocates continual preparation and ongoing investment in training and development.

Some studies investigated the extent of integrating IFRS education into the accounting curriculum of universities in the US. Nilsen (2008) reported that the integration of IFRS in the US has already begun in some accounting courses (since 2008) and that the University of Alabama has agreed to fully introduce IFRS education in the coming years. Similarly, Smith and Von Bergen (2009) and Kroll (2009) suggested that many accounting educators in the US have started the process of introducing IFRS education in their curricula. Thomas (2009) observed that the US universities that incorporated IFRS in their accounting curricula were larger universities, indicating that smaller ones were lagging behind. The inadequacy of IFRS education integration in the US was further delineated by Munter and Reckers (2010) when they reported that only a small number of universities and colleges introduced IFRS education into their curricula, and to a very low extent, such as only two student credit hours, through case studies. Karr (2008) suggested that the motivation behind the introduction of IFRS education by a small number of US universities was their global focus. These universities introduced IFRS education to prepare their students for work in global firms. On the contrary, universities with a primarily US focus lagged behind. The survey conducted by KPMG and the education committee of the American Accounting Association (AAA) of five hundred US accounting educators reported that most faculties were uncertain about the timing of IFRS incorporation into their curricula, while 31% had no such plans for incorporation (Munter & Reckers 2010).

The European Union (EU) and Canada prepared their accountants for IFRS introduction in the initial years through professional development and training of the workforce. Aisbitt (2005) outlined that when the

EU introduced IFRS in 2005, graduates were not ready as the curricula of universities lagged behind. Hence, companies in these countries had to train their accounting professionals. The International Accounting Standards Committee Foundation (IASCF) and the International Federation of Accountants (IFAC) in association with other professional accounting bodies have created resources to train the workforce (Aisbitt 2005). On the contrary, Canada has been criticized in *CMA Management* (2008) for not concentrating on training its accounting professionals in IFRS and depending mostly on university education in this regard.

Besides the US, Shkurti and Naqellari (2010) conducted research on IFRS education in Albania. Their study reported that the accounting syllabus in universities in Albania does not sufficiently train graduates in IFRS. Similarly, Madawaki (2012) reported insufficient IFRS education in Nigeria. The reason behind such scarcity of IFRS education implementation is the expense of IFRS learning resources.

Some studies have reported the means of implementing IFRS education in countries. Lopes (2011) reported the need for a change in teaching philosophy and approach, leading to a change in teaching materials in universities in Brazil as a result of introducing IFRS education (Lopes 2011). Berrios (2012) reported the integrated approach to IFRS education rather than teaching IFRS as a separate course in Latin America.

Studies investigating the extent of IFRS education in the US report a dearth of integrating such education in this country. The urgency to integrate IFRS education in the curricula of US universities was suggested by several authors (James & Blaszczynski 2010; Martin et al. 2008; Paul & Burks 2010; Shkurti & Naqellari 2010; Thomson 2008; Zhu et al.,2011). Considering the gradual acceptance of IFRS by the US SEC and the recent indication of possible acceptance of IFRS from US domestic issuers for filing in the US SEC from 2014, US universities need to focus on educating future graduates in this regard. Otherwise, the burden of educating the workforce may fall on accounting firms – as was experienced in the EU. Most studies that investigated the extent of IFRS education concentrated on developed economies such as the EU and the US. Studies in emerging economies are sparse. Shkurti and Naqellari (2010) and Madawaki (2012)

reported a dearth of IFRS education in Albania and Nigeria respectively. This lack of studies is concerning because, considering the principles-based nature of IFRS and the requirement to exercise judgements by accountants as opposed to rules-based standards such as those in the US, it is envisaged that accountants need more practice to apply these standards.

4.0 APPROACHES TO TEACHING IFRS

Past literature has discussed different teaching methods applied to teach IFRS. Most studies suggested that real-life case studies are the best method to teach IFRS because IFRS are principles-based (Carslaw & Purvis 2007; *CPA Journal* 2010; Henry, Lin & Yang 2007; James 2011; Karr 2008; Larson & Brady 2009; Larson & Street 2011; Martin et al. 2008; Mintz 2010; Munter & Reckers 2009; Smith & Von Bergen 2009). The reason behind suggesting case studies is that they inform students about the real world (Karr, 2008), develop their critical thinking (Karr 2008; Smith & Von Bergen 2009) and familiarise them with companies' financial statements (Larson & Brady, 2009). Case studies may vary in format and scope; however, when selecting case studies for teaching IFRS it is important for teachers to reflect on the extent to which the case reflects the real world and the potential of the case to be used to stimulate critical thinking. The survey by KPMG and the education committee of the American Accounting Association reports that 76% of respondents supported the use of case studies as the main material to teach IFRS (Munter & Reckers, 2009).

Considering the principles-based nature of IFRS, which requires meeting the learning outcomes of developing critical thinking and exercising judgement, most studies encouraged an active learning approach to teaching IFRS (Conrod 2010; Lopes 2011; Jermakowicz & Hayes 2011). Active learning engages students in higher order thinking, exercising their critical thinking skills, and requires teachers to focus on what students do, rather than on transmission of information. Traditional lectures typically involve passive learning activities such as reading, listening and viewing; students retain 10% of what

they read, 20% of what they hear, and 50% of what they see and hear. On the other hand, active learning frequently involves problem-based learning activities that require students to participate. Students retain 70% of what they say and write, and 90% of what they do (Biggs 1999; nwiacommcollege 2011). Teaching techniques suggested to teach IFRS include class projects such as assignments that involve research and case presentation (Conrod 2010; Kinkela, Harris & Malindredos 2010), and case studies (Jermakowicz & Hayes 2011; Lopes 2011) that enhance the capacity of students to exercise judgement (Singleton-Green 2010; Wells 2011). In traditional approaches to teaching IFRS using case study methodologies, teachers may ask students to discuss, review, read and write, which places this approach in the lower end of the active learning spectrum.

The approaches to teaching described later in this paper provide teachers with ideas about how they can enhance students' critical thinking skills and extend active learning through problem-based learning. The need to engage students in active learning has been firmly established in educational research, particularly through the work of Biggs (1999), and Trigwell and Prosser (2003) who noted, "CCSF [conceptual change student-focused] approaches are shown to be more desirable from both a student learning perspective and from a teacher satisfaction and development perspective" (p.214). It must be noted here that differences in teaching practices resulting in passive or active learning are strongly linked to teachers' conceptions of teaching. For example, Trigwell and Prosser's (2003) 'conceptual change student-focused' conception of teaching is linked to active learning, whereas their 'information transfer teacher-focused' conception of teaching is linked with passive learning. The extent of research into and commentary on teachers' conceptions of teaching is too vast to address in the current paper; Kane, Sandretto, and Heath (2002) reviewed the literature and found 49 separate studies.

Some studies forwarded the notion of a community of scholars, wherein educators worldwide learn from each other in regard to best practice in teaching IFRS together with opportunities to teach in various parts of the world (Bagranoff 2010; Larson & Brady 2009). This would expose students to various teaching styles and facilitate their learning. Kinkela, Harris and Malindredos (2010) and Larson and Brady

(2009) suggested inviting professionals to provide seminars or workshops to students on campus, which would expose the students to real life examples and facilitate their learning.

The importance of a broad understanding of legal, political and economic differences between countries in order to understand the differences in accounting practices was suggested by Larson and Brady (2009). Similarly, James (2011) stressed the importance of students' awareness of the benefits and challenges of IFRS in various countries. However, differences exist between authors in regard to whether such a broader understanding should be introduced in lower level accounting subjects (James 2011) as opposed to higher level (Kinkella, Harris & Malindredos 2010; Larson & Brady 2009).

Due to the changing nature of IFRS, previous studies have stressed the significance of continuing education (Martin et al. 2008; Thomas 2009; Warren Group 2008; Wolosky 2009). Such education of accounting professionals by their employers may take place internally or through external institutions that develop comprehensive training programs (Wolosky 2009). However, such training must cater to individual needs (Martin et al. 2008). An example of training accounting professionals internally was provided by Wolosky (2009) who explained such training in BDO alliances. This company made extensive changes to their system to integrate IFRS and educate their staff. They updated their audit engagement software, included IFRS research tools to educate staff, and developed web seminars and publications. These web seminars and publications were also targeted for clients and contacts (Wolosky 2009).

Until now, development of IFRS teaching resources has been limited to large accounting firms and accounting professional bodies. There is a dearth of concentration on IFRS education by smaller accounting firms. In the US the Big Four accounting firms have spent significant amounts of time developing educational resources, such as web seminars and notes for their staff and the public (James 2011; Kinkela, Harris & Malinderos 2010). For instance, KPMG established online learning material including monthly updates of IFRS changes. Ernst & Young and PricewaterhouseCoopers (PwC) provided grants to colleges and universities to support the development of a new curriculum that incorporates IFRS (Mintz 2010). In 2008, Deloitte organised the university consortium, which advocated the use of

real-life case studies as one of the leading IFRS learning resources (*Public Accounting Report* 2009). Websites of accounting professional bodies such as BDO International, Deloitte, Ernst & Young, Grant Thornton, KPMG and PwC and of professional accountancy bodies such as the American Institute of Certified Public Accountants (AICPA), and professional journals such as *Accountancy* published by the Institute of Chartered Accountants in England and Wales (ICAEW) provide resources about IFRS (Larson & Street 2011). The American Accounting Association (AAA) organised more than 50 sessions about IFRS in their annual meetings and developed resources for accounting educators (Bagranoff 2010).

In Canada in 2011, as the deadline to adopt IFRS was approaching, the urgency of resources to train accountants was acute. As a result, the Canadian Institute of Chartered Accountants (CICA) invited all Big Four accounting firms and accounting academics to develop a package of teaching materials, which were subsequently used as part of an e-learning course. The aim of this course was to prepare individuals to develop the skills necessary for a smooth transition to IFRS (Chartered Accountants of Canada, 2008, 2009; D'Cruz 2008). In the year closer to adoption, Conrod (2010) observed that some resources, such as textbooks, were published for intermediate accounting students. Online resources were mostly provided by the Big Four accounting firms and BDO International.

As outlined above, the significance of developing critical thinking skills of students has been widely stressed in various studies (Bagranoff 2010; Karr 2008; Smith & Bergen, 2009). Teaching tools advocated to develop such skills include case studies (Carslaw & Purvis 2007; *CPA Journal* 2010; Henry, Lin & Yang 2007; James 2011; Larsen & Brady 2009; Larson & Street 2011; Mintz 2010; Munter & Reckers 2009; Martin et al. 2008; Smith & Bergen 2009) and learning from the experiences of professionals (Kinkela, Harris & Malindredos 2010; Larson & Brady 2009).

Another approach that was suggested as useful in educating for the application of IFRS was to raise students' awareness of the differences between national standards and IFRS (Hughes 2007; Kroll 2009; Singleton-Green 2010; Wolosky 2009). This suggestion resulted from the principles-based nature of IFRS, leading to possible differences in their application between countries (James 2011; Larson & Brady

2009). The strength of this approach in the US, as suggested by Hughes (2007), is its ability to equip students with understanding of both the national standards and IFRS. This approach was favoured by most respondents (56%) in a survey conducted by KPMG and the education committee of AAA (Munter & Reckers 2009). On the contrary, Larson and Street (2011) criticised a teaching approach that includes comparing and contrasting the US GAAP and the IFRS due to its concentration on both standards rather than providing in-depth knowledge of either set of standards. Debates also exist about whether students should be alerted in this regard at the lower (James 2011) versus the higher level (Larson & Brady 2009; Kinkella, Harris & Malindredos 2010).

Until now, no studies have evaluated the success of the curriculum content and delivery style. Such evaluation is necessary to attain best practice in IFRS education. As opportunities are limited for accounting graduates when they join accounting firms, because such training is restricted to the Big Four accounting firms (James 2011; Kinkela, Harris & Malindredos 2010), it is essential for universities to engage in best practice in this regard. Most studies suggested that the use of case studies and real life examples were the best methods. However, a range of factors influences the success of such methods. For example, both students and teachers have their own preferred teaching and learning styles. A range of teaching resources is required to meet individual needs (Martin et al. 2008). Hence, the effectiveness of available teaching resources needs to be evaluated and alternative approaches to teaching IFRS need to be developed.

5.0 BARRIERS TO IMPLEMENTING IFRS EDUCATION

Teaching approaches aimed at achieving the learning outcome for students of developing critical thinking skills and exercising judgements require resources to develop such skills. The present section reviews previous literature to ascertain the availability of such resources and the conduciveness of the curricula to meet such demands.

Several studies reported the barriers faced by educational institutions to teach IFRS (Cherubini et al. 2011; Larson & Brady 2009; Lopes 2011; Madawaki 2012; Mintz 2010; Munter & Reckers 2009; Paul & Burks 2010; Stokes, Isaacson & Clopper, 2011; Zhu et al. 2011). One of the most reported barriers in educating students about IFRS in the US is the non-availability of teaching resources, particularly textbooks, to meet the requirements of their students (Abel 2008; Martin et al. 2008; Paul & Burks 2010). The survey conducted by KPMG and AAA indicated that 89% of US accounting educators preferred the textbook (Munter & Reckers 2009). In spite of the significance attached to textbooks, 42% of accounting professors surveyed in the US did not expect such IFRS textbooks to be published until the 2010–11 academic years (Paul & Burks 2010). Stokes, Isaacson & Clopper (2011) reported that textbooks published in 2009 and 2010 in the US included insufficient information and too few exercises to develop critical thinking skills of students. On the contrary, Larson and Street (2011) argued that varieties of high-quality resources were widely available online for free or at a low cost. Similarly, Aisbitt (2005) suggested that IFRS teaching resources were widely available worldwide. These resources need to be used effectively to teach IFRS. Considering the principles-based nature of IFRS, it is suggested that US accounting educators refer to textbooks from other countries and online resources. Referring to textbooks based in other countries and worldwide online resources will also aid in broader understanding of IFRS and its application, ultimately enhancing students' critical thinking and judgement skills. These generic skills have a significant role to play in equipping students with the expertise to apply IFRS.

Another barrier to implementing IFRS education in the US is the uncertainty of the curriculum about whether US GAAP still needs to be taught when IFRS is incorporated into the curriculum. This is a result of the uncertainty caused by the US SEC in regard to the adoption of IFRS. The US SEC has allowed foreign companies to file IFRS-based financial statements without reconciliation to the US GAAP for financial statements ending on or after 15th November 2007 (SEC 2007a). The issue of the concept release by the US SEC in 2007 requesting comments on the proposal to allow US issuers to prepare

financial statements in accordance with IFRS (SEC2 2007b) and the issue of a roadmap by the SEC in 2009 about the probability of allowing US domestic issuers to prepare financial statements following IFRS for listing purposes, further indicates the possibility of IFRS adoption in the US in the very near future. Hence, accounting educators are balancing the costs and benefits of whether to implement IFRS education now or wait until IFRS is adopted in the US (Choi 2008; DeFelice & Lamoreaux 2010; Karr 2008; Kinkela, Harris & Malindredos 2010; Kroll 2009; Larson & Brady 2009; Mintz 2010 Munter & Reckers 2010; Nilsen 2008). Cherubini et al. (2011) emphasised that it is important to educate students regardless of whether the US SEC adopts IFRS or not, as IFRS is accepted in more than 110 countries. Students of today will not only invest in the US; they will invest globally. Hence, it is important that they obtain education in IFRS.

The third barrier, considering the already overloaded curriculum of US universities with US GAAP, is whether to establish a new course for IFRS or incorporate IFRS in the existing curriculum (Munter & Reckers 2010; Nilsen 2008; Smith & Bergen 2009). Professor Mary Barth stated that “IFRS can’t be simply layered on top of the existing curriculum but it would be almost silly to have two separate courses at this point, both starting at the same place and ending with slightly different details” (Nilsen 2008, p. 83). One possibility is incorporating IFRS alongside the national GAAP and highlighting significant differences until the US adopts IFRS (Cherubini et al. 2011) as this would only take an additional five to fifteen minutes each week (James 2011; Cherubini et al. 2011). However, this teaching technique can be criticised due to its lack of concentration on IFRS and its inability to provide students with in-depth knowledge in this regard.

In addition to the challenges of IFRS education in the US, previous literature outlined challenges faced by other countries. These challenges included the cost of the curricula changes (Munter & Reckers 2010), the changes required in computer software and technologies (Abel 2008), and shortage of staff trained in IFRS (Munter & Reckers 2009). A number of challenges are faced in Nigeria and Brazil in regard to implementing IFRS education. In Nigeria, the principal barrier is obtaining IFRS educational materials at

an affordable cost. The time allocated to training accountants or graduates in Nigeria was another impediment to successfully implementing IFRS in this country. This is because the time difference between the announcement of IFRS implementation and the actual implementation itself was too short (Madwaki 2012). IFRS brought other challenges in Brazil because the teaching method in this country traditionally concentrated on technical details, rather than concentrating on enhancing the judgement and critical thinking skills of students (Lopes 2011).

Lopes (2011) noted that changing the teaching procedure to a completely different practice will consume long hours and significant effort. Accounting educators in countries considering moving towards IFRS, or in countries where two sets of accounting standards exist, need to ascertain the challenges of early (as opposed to late) adoption, national standards versus IFRS, and costs and benefits. Considering the global nature of the investment and business environment, and the difficulties faced in countries such as Nigeria due to rapid adoption of IFRS, it is timely for accounting educators in countries such as the US that are considering the adoption of IFRS to introduce IFRS into the curriculum. It is expected that referring to web-based teaching resources will be a cost-effective way of moving forward in this regard.

Overall, many countries are still facing barriers in incorporating IFRS into the current education system. Some countries experience difficulty in finding suitable teaching and learning resources while others find that the current education system is nearly full to capacity and cannot accommodate new material. However, there is a shortage in the number of studies that discuss barriers encountered by developing countries and barriers that were experienced by IFRS early adopters, such as Australia and the EU. Nevertheless, these studies will be advantageous as references for countries that are experiencing difficulties in implementing IFRS in the education system.

6.0 PROPOSED TEACHING METHODS TO FACILITATE LEARNING OF IFRS

Considering the principles-based nature of IFRS, which requires critical thinking and exercising judgements, this section outlines the proposed teaching methods to facilitate learning of IFRS. The principles-based nature of IFRS has led previous studies to emphasise teaching techniques that enhanced the critical thinking skills of students (Singleton-Green 2010; Smith & Bergen 2009; Wells 2011). Case studies have been widely advocated to enhance such skills (Carslaw & Purvis 2007; *CPA Journal* 2010; Henry, Lin & Yang 2007; James 2011; Karr 2008; Larson & Brady 2009; Larson & Street 2011; Martin et al. 2008; Mintz 2010; Munter & Reckers 2009; Smith & Bergen 2009). Following such suggestions, the present paper suggests PBL, POGIL and PLTL as teaching methods. These techniques enhance critical thinking skills, which have been suggested to be essential in applying IFRS.

The use of case studies has been advocated to teach IFRS as it addresses the learning outcome of developing critical thinking skills in students (Carslaw & Purvis 2007; *CPA Journal* 2010; Henry, Lin & Yang 2007; James 2011; James & Blaszczyński 2010; Larsen & Brady 2009; Larson & Street 2011; Martin et al. 2008; Mintz 2010; Munter & Reckers 2009; Smith & Bergen 2009). According to Milne and McConnell (2001), case studies are typically used to allow students to apply the theories they are studying to specific cases depicting real-life issues in business. Although the use of case studies is advocated as an effective method of inductive teaching to ensure active learning, if students are familiar with the theories and concepts traditional case study-based teaching may not develop the deep learning that students' require to develop their capacity to make judgements when applying IFRS (Prince & Felder 2007). In order to obtain the most benefit from case studies, accounting educators could continue to utilise the rich resources they are familiar with in the form of case studies but adopt a PBL approach, rather than the traditional application of theory to cases. PBL differs from traditional approaches because in this teaching approach students are given the problem first, before they are familiarised with the underlying concepts and theories. In this way, students generate knowledge rather than practising already acquired knowledge (Milne & McConnell, 2001). Hence PBL aims to create knowledge through

the use of case studies rather than application of knowledge to cases. Problematically, the hybridisation of generic PBL techniques may have made this distinction unclear to many accounting educators (Eberlein et al. 2008).

PBL is a specific, as well as generic, term used to describe pedagogies in which problems are used to generate knowledge (Major & Palmer 2001). At one end of the scale there is guided inquiry typically associated with teaching using case studies (Eberlein et al. 2008). Alternatively, accounting educators can refrain from using case studies for the sole purpose of applying theory. Instead, they can use case studies in order to present students with “stories about unresolved and messy real-world situations that require integrating multiple disciplinary perspectives” (Eberlein et al. 2008, p. 263). Further to this, it may be strategically advantageous to challenge senior students to investigate relevant issues in the industry, particularly in relation to IFRS and write up problem scenarios as an assessment. This would have multiple benefits: senior students would have the opportunity to engage in authentic learning tasks, whereas other students would have the opportunity to create new knowledge as they seek to solve real-life industry-based problems, and accounting educators would have an abundance of resources at their fingertips without having to personally create them.

POGIL is a similar strategy in which students work in teams to solve problems using a cyclical approach of three-stages – exploration, concept development, and application (Eberlein et al. 2008). Similarly, PLTL is another approach to using problems to stimulate knowledge creation by students. PLTL requires the use of ‘peer leaders’ who facilitate problem-based inquiry with small groups of students outside of class (Eberlein et al. 2008, p. 266). Some higher education institutions may already have similar peer mentoring schemes in place. If so, it would be important to emphasise the need to present students with a tricky problem to solve as a first step in order to create knowledge, rather than as a final step in which students practise the application of knowledge. Implementation of this strategy may be constrained for budgetary reasons or because of the need to train peer leaders. It is recommended that accounting educators become familiar with a range of problem-based learning approaches and become sufficiently

pedagogically skilled to make informed choices about when it is best to adopt either a problem-based learning approach or more traditional ways of teaching using case studies. Problem-based learning could provide opportunities for students to enhance their ability to make judgements in relation to IFRS. Given the need to consider qualitative characteristics of relevance, materiality and faithful representation while applying IFRS, it is suggested that teaching techniques include PBL, POGIL and PLTL, rather than the conventional case study method. We suggest implementation of PBL, POGIL or PLTL is varied depending on whether the course is undergraduate or postgraduate. This will aid in attaining the learning outcome of the development of critical skills at a level appropriate for application of complex IFRS.

7.0 Conclusion

The global move towards IFRS is not a problem solely faced by accountants adopting these standards. Accounting educators face great challenges in framing the best teaching methods, including teaching styles and resources. Overall, implementation of IFRS education is evolving and the best methods to teach IFRS should consider the principles-based framework-driven nature of these standards. Available evidence from past literature outlines that the active learning approach, which stimulates the critical thinking and judgement skills of students, is the most effective model to teach IFRS. This suggestion follows from the need to consider qualitative characteristics while applying IFRS. Considering such need to exercise judgements in applying IFRS, retraining current accounting professionals by holding seminars or organising courses is also vital. Uncertainty is still experienced in countries that are in the process of IFRS integration, such as the US, Nigeria and Brazil. This uncertainty is caused by barriers encountered in these countries, such as the lack of teaching materials, changes in software and technologies, hesitation in the timing of IFRS education incorporation, and methods in implementing IFRS into the current education system. In order to assist these countries overcome their barriers, suggestions from early adopters of IFRS, like the EU or Australia, would be beneficial. The situation is crucial considering the

challenge posed by IFRS in accounting education – that is, the need to develop critical thinking and judgement skills of students at higher level.

The present study proposes that, due to the principles-based nature of IFRS, teaching methods should include problem-based learning strategies together with case studies and practical examples. Conventional case study method is a definite advantage over only textbook-based teaching. However, considering the need to develop students' critical thinking and judgement skills at the higher level in order to apply complex financial reporting standards, the use of PBL, POGIL and PLTL teaching techniques are suggested, as opposed to the conventional case study method. However, teaching techniques are expected to vary depending on whether the accounting course is undergraduate or postgraduate, and the year of study in each of these programs.

8.0 LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The review presented in the present study is limited to the *Business Source Complete* database. We suggest that future studies include literature from other databases.

Most previous research in the area of IFRS education was solely from the US. Hence, future studies are suggested in countries that are implementing IFRS in their education system and, particularly, in developing countries as they face the additional challenge of obtaining IFRS education materials that are currently difficult to obtain due to financial constraints. This has been outlined in the case of Nigeria. An opportunity that arises from such financial challenges in these countries is to develop cost-effective teaching resources.

Finally, there has been a lack of studies investigating students and educators perceptions of the available teaching resources and teaching approaches. Most studies suggested case study and real-life examples to be the best methods. It also needs to be acknowledged that the success of a specific teaching method

depends on the preferred learning style of individuals. Hence, the availability of a diverse range of teaching resources and techniques is essential.

References

- Abel, J.J. (2008) Ramping up awareness of convergence process, *Financial Executive*, 24, p. 6.
- Accounting Today* (2009) Professors urge IFRS education, 23, p. 9.
- AICPA (2013) *IFRS FAQs*, viewed 4th August 2013, http://ifrs.com/ifrs_faqs.html#q5.
- Aisbitt, S. (2005) International accounting books: publishers' dream, authors' nightmare and educators' reality, *Accounting Education*, 14, pp. 349–60.
- Bagranoff, N. (2010) Global challenges and opportunities, *Accounting Education News*, 38, pp. 3–4.
- Barth, M.E. (2008) Global financial reporting: implications for US Academics, *The Accounting Review*, 83(5), pp. 1159–1179.
- Berríos, M. R. (2012) IFRS Readiness in Latin American business curricula, *Business Education & Accreditation*, 4, pp. 49–60.
- Biggs, J. (1999) What the student does: teaching for enhanced learning, *Higher Education Research & Development*, 18, 57–75.
- Carshaw, C.A. and Purvis, S.E.C. (2007) Megascreens USA Inc. – a foreign operations case, *Issues in Accounting Education*, 22, pp. 579–90.
- Charles Sturt University Library (<http://www.csu.edu.au/division/library/find-info/databases/subject/business>).
- Chartered Accountants of Canada (2008) IFRS teaching supplements welcomed by Canada's academics, 141, p. 19.
- (2009) Canada's CAs launch online introduction to IFRS, *CA Magazine*, 142, p.18
- Cherubini, J., Rick, K., Zhu, H. and Michenzi, A. (2011) IFRS in the general business curriculum: why should we care?, *CPA Journal*, 81, pp. 13–15.
- Choi, F. D. S. (2008). Marching toward convergence, *Accounting Education News*, 36, pp. 5–6.
- CMA Management* (2008) E&Y includes human resources in the IFRS equation, 82, p.9.
- Conrod, J. E. D. (2010) IFRS within the multi-GAAP Canadian reality: a teaching and learning imperative for intermediate financial accounting, *Accounting Perspectives*, 9, pp. 1–13.
- CPA Journal* (2010) Panel discussion: charting the course to safe harbor, 80, pp. 21–33.
- D'Cruz, D. (2008) Further down the road: the IFRS Canadian experience, *Practical Accountant*, 41, p. 40.

- DeFelice, A. and Lamoreaux, M.G. (2010) The SEC's IFRS Work Plan, *Journal of Accountancy*, 209, 22–25.
- Dow, B.J. (1996) *Prime-time feminism: television, media culture, and the women's movement since 1970*, (Philadelphia, University of Pennsylvania Press).
- Deloitte Global Services Limited (2011) Use of IFRSs by Jurisdiction, Viewed 12 May 2011, <http://iasplus.com/country/useias.htm>.
- Eberlein, T., Kampmeier, J., Minderhout, V., Moog, R.S., Platt, T., Varma-Nelson, P. and White, H.B. (2008) Pedagogies of engagement in science: a comparison of PBL, POGIL, and PLTL, *Biochemistry and Molecular Biology Education*, 36(4), pp. 262–273.
- Entman, R. (2003) *Projections of power: framing news, public opinion and US foreign policy*, (Chicago, The University of Chicago Press).
- Fursich, E. (2009) In defence of textual analysis, *Journalism Studies*, 10(2), pp. 238–252.
- GAO (1982) Content analysis: a methodology for analyzing written material, (Washington DC).
- Haber, J. R. (2010) No need to focus on IFRS education yet, *New York State Society of CPAs*, p. 14.
- Henry, E., Lin, S. W. and Yang, Y. (2007) Weak signal: evidence of IFRS and US GAAP convergence from Nokia's 20-F reconciliations, *Issues in Accounting Education*, 22, pp. 709–720.
- Hughes, S. B. (2007) Using Form 20-F reconciliations to internationalize an accounting course, *Journal of Accounting Education*, 25, pp. 137–151.
- IASB (2013) The conceptual framework for financial reporting, viewed 11 March 2013, <http://eifrs.ifrs.org/eifrs/bnstandards/en/2012/framework.pdf>.
- IFRS Foundation (2011) About the IFRS Foundation and the IASB, viewed 10 May 2011, <http://www.ifrs.org/The+organisation/IASCF+and+IASB.htm>.
- (2013) About the IFRS education initiative, viewed 11 March 2013, <http://www.ifrs.org/Use-around-the-world/Education/Pages/Education.aspx>.
- Accounting Education* (2011) IFRS learning resources, 20, pp. 457–66.
- Irvine, H. (2008) The global institutionalization of financial reporting: the case of the United Arab Emirates. *Accounting Forum*, 32(2), pp. 125–142.

- James, M. L. (2011) Integrating International Financial Reporting Standards into the accounting curriculum: strategies, benefits and challenges, *Academy of Educational Leadership Journal*, 15, pp. 127–42.
- James, M. L., and Blaszczyński, C. (2010) Accounting students' perceptions of International Financial Reporting Standards, *Journal for Global Business Education*, 10, p. 37–49.
- Jermakowicz, E. K. and Hayes, R. D. (2011) Framework-based teaching of IFRS: the case of Deutsche Bank. *Accounting Education*, 20, pp.373–385.
- Kane, R., Sandretto, S, and Heath, C. (2002) Telling half the story: a critical review of research on teaching beliefs and practices of university academics, *Review of Educational Research*, 72, 177–228.
- Karr, S. S. (2008) Climbing the learning curve from GAAP to IFRS, *Financial Executive*, 24, pp. 46–49.
- Kinkela, K., Harris, P., & Malindredos, J. (2010) Introducing IFRS in introductory financial accounting courses, *Business Education & Accreditation*, 2, pp. 39–47.
- Kroll, K. (2009) Is It US Gaap or IFRS at US universities?, *Financial Executive*, 25, pp. 52–55.
- Larson, R. K. and Brady, T. J. (2009) Incorporating IFRS into the accounting curriculum. *Strategic Finance*, 90, pp. 23–25.
- Larson, R. K. and Street, D. L. (2011) IFRS teaching resources: available and rapidly growing. *Accounting Education*, 20, pp. 317–338.
- Lopes, A. B. (2011) Teaching IFRS in Brazil: news from the front, *Accounting Education*, 20, pp. 339–347.
- Madawaki, A. (2012) Adoption of International Financial Reporting Standards in developing countries: the case of Nigeria, *International Journal of Business & Management*, 7, pp. 152–161.
- Major, C.H. and Palmer, B. (2001) Assessing the effectiveness of problem-based learning in higher education: lessons from the literature, *Academic Exchange Quarterly*, 5(1), pp. 1–6.
- Martin, P., Mezon, L., Forristal, T., Labelle, R., Radcliffe, V. S. and Gaa, J. C. (2008) International Financial Reporting Standards are coming: are you ready?, *Accounting Perspectives*, 7, pp. 41–56.
- Milne, M.J. and McConnell, P.J. (2001) Problem-based learning: a pedagogy for using case material in accounting education, *Accounting Education: An International Journal*, 10(1), pp. 61–82.
- Mintz, S. M. (2010) Implementation concerns about IFRS adoption in the US, *Journal of International Business Education*, 5, pp. 97–115.

Munter, P. and Reckers, P. M. J. (2009) IFRS and collegiate accounting curricula in the United States: 2008 a survey of the current state of education conducted by KPMG and the Education Committee of the American Accounting Association, *Issues in Accounting Education*, 24, pp. 131–139.

— (2010) Uncertainties and budget shortfalls hamper curriculum progress on IFRS, *Issues in Accounting Education*, 25, pp.189–198.

Nilsen, K. (2008) On the verge of an academic revolution, *Journal of Accountancy*, 206, pp.82–85.

nwiacommcollege (2011) *What is active learning?*, online video, viewed 2 April 2012
<http://www.youtube.com/watch?v=UsDI6hDx5ul>.

Paul, A. and Burks, E. (2010) Preparing for International Financial Reporting Standards, *Journal of Finance & Accountancy*, 4, pp. 1–8.

Pawsey, Brown, and Chatterjee (2011) The potential use of IFRS for US issuers: a textual analysis of responses to the proposal, 23rd *Asian Pacific Conference on International Accounting Issues*, 16–19 October, Beijing, China.

Pounder, B. (2011) Preparing for continual change, *Financial Executive*, 27, pp. 63–65.

Prince, M. and Felder, R. (2007) The many faces of inductive teaching and learning, *Journal of College Science Teaching*, 36(5), pp. 14–20.

Public Accounting Report (2009) Set of IFRS course materials available through Deloitte's IFRS University consortium, 33, p. 2–2.

Schipper, K. (2003) Principles-based accounting standards, *Accounting Horizons*, 17(1), pp. 61–72.

SEC (2007a) Acceptance from foreign private issuers of financial statements prepared in accordance with international financial reporting standards without reconciliation to US GAAP (Release Nos. 33–8879; 34–57026; International Series Release No. 1306; File No. S7-13-07; 21 December 2007).

— (2007b) Concept release on allowing US issuers to prepare financial statements in accordance with international financial reporting standards; proposed rule, viewed 5 September 2008,
<http://sec.gov/rules/concept/2007/33-8831fr.pdf>.

— (2009) Roadmap for the potential use of financial statements prepared in accordance with International Financial Reporting Standards by US issuers, viewed 7 February 2009,
<http://www.sec.gov/rules/proposed/2008/33-8982.pdf>.

— (2012) SEC staff publishes final report on work plan for Global Accounting Standards, viewed 4th August 2013, <http://www.sec.gov/News/PressRelease/Detail/PressRelease/1365171483216>.

- Shan, H. and Nah, S. (2004) Long ago and far away: how US newspapers construct racial oppression, *Journalism*, 5(3), pp. 259–278.
- Shkurti, R. and Naqellari, M.A.J. (2010) Quality of financial and accounting information in Albania as perceived by the practicing accountants, *Journal of Accounting Education*, 28, pp. 128–137.
- Singleton-Green, B. (2010) Commentary: IFRS – the SEC's roadmap and the contribution of the academic community, *Australian Accounting Review*, 20, pp. 407–408.
- Smith, G. S. and Von Bergen, C. W. (2009) The human side of IFRS, *CPA Journal*, 79, pp. 59–61.
- Steeves, H.L. (1997) Gender violence and the press: the St. Kizito story, (Athens: Ohio University Centre for International Studies).
- Stewart, M. (2012) Understanding learning: theories and critique, in: L. Hunt and D. Chalmers (Eds.) *University Teaching in Focus: a Learning-Centred Approach*, pp. 3–20 (Camberwell, Victoria: ACER Press).
- Stokes, L., Isaacson, E. and Clopper, I. (2011) The rush to IFRS: practice vs academe, is the need to change the CPA exam genuine?, *Journal of Modern Accounting & Auditing*, 7, pp. 1197–2000.
- Thomas, J. (2009) Convergence: businesses and business schools prepare for IFRS, *Issues in Accounting Education*, 24, pp. 369–376.
- Thomson, J. C. (2008) Take action on IFRS Now!, *Accounting Today*, pp. 6–7.
- Trigwell, K. and Prosser, M. (2003), Qualitative difference in university teaching, *Access and Exclusion*, 2, 185–216.
- Warren Group (2008) Q&A with Njscpa Executive Director Ralph Albert Thomas, p. 4.
- Wells, M. J. C. (2011) Framework-based approach to teaching principle-based accounting standards, *Accounting Education*, 20, pp. 303–316.
- Wolosky, H. W. (2009) Convergence: what firms are doing now, *Practical Accountant*, 42, pp. 19–22.
- Zhu, H., Rich, K., Michenzi, A.R. and Cherubini, J. (2011) User-oriented IFRS education in introductory accounting at US academic institutions: current status and influencing factors, *Issues in Accounting Education*, 26(4), pp. 725–750.

APPENDIX – DEMOGRAPHICS OF LITERATURE

	Author(s)	Year	Title	Journal Name
1	Abel, J.J.	2008	Ramping up awareness of convergence process	<i>Financial Executive</i>
2		2009	Professors urge IFRS education	<i>Accounting Today</i>
3	Aisbitt, S.	2005	International accounting books: Publishers' dream, authors' nightmare and educators' reality.	<i>Accounting Education</i>
4	Bagranoff, N.	2010	Global Challenges and Opportunities	<i>Accounting Education</i>
5	Barth, M.E.	2008	Global financial reporting: Implications for US Academics	The Accounting Review
6	Berrios, M.R.	2012	IFRS Readiness in Latin American Business Curricula	<i>Business Education & Accreditation</i>
7	Carslaw, C.A. and Purvis, S.E.C	2007	Megascreens USA Inc.- a Foreign Operations Case	<i>Issues in Accounting Education</i>
8	Chartered Accountants of Canada	2009	Canada's CAs Launch Online Introduction to IFRS	<i>CA Magazine</i>
9	Chartered Accountants of Canada	2008	IFRS teaching supplements welcomed by Canada's academics	<i>CA Magazine</i>
10	Cherubini, J., Rick, K., Zhu, H. And Michenzi, A.	2011	IFRS in the General Business Curriculum: Why Should We Care?	<i>The CPA Journal</i>
11	Choi, F.D.S	2008	Marching toward Convergence	<i>Accounting Education News</i>
12	Conrod, J.E.D	2010	IFRS within the Multi-GAAP Canadian Reality: A Teaching and Learning Imperative for Intermediate Financial Accounting	<i>Accounting Perspectives</i>
13	D'Cruz, D.	2008	Further Down the road: The IFRS Canadian Experience.	<i>Practical Accountant</i>
14	DeFelice, A. and Lamoreaux, G.	2010	The SEC's work plan.	<i>Journal of Accountancy</i>
15	Haber, J.R.	2010	No need to focus on IFRS education yet.	<i>New York State Society</i>
16	Henry, E., Lin, S.W. and Yang, Y.	2007	The European-U.S. "GAAP gap": IFRS to	<i>Accounting Horizons</i>

			U.S. GAAP form 20-F reconciliations	
17	Hughes, S.B.	2007	Using Form 20-F Reconciliations to Internationalize an Accounting Course	<i>Journal of Accounting Education</i>
18	James, M.L.	2011	Integrating International Financial Reporting Standards into the accounting curriculum: Strategies, benefits and challenges.	<i>Academy of Educational Leadership Journal</i>
19	James, M.L. and Blaszczynski, C.	2010	Accounting students' perceptions of International Financial Reporting Standards.	<i>Journal of Global Business Education</i>
20	Jermakowicz, E.K. and Hayes, R.D.	2011	Framework-Based teaching of IFRS: the case of Deutsche Bank	<i>Accounting Education</i>
21	Karr, S.S.	2008	Climbing the learning curve from U.S. GAAP to IFRS	<i>Financial Executive</i>
22	Kinkela, K., Harris, P. and Malindredos, J.	2011	Introducing IFRS in introductory financial accounting courses.	<i>Business Education & Accreditation</i>
23	Kroll, K.	2009	Is it U.S. GAAP or IFRS at U.S. universities	<i>Financial Executive</i>
24	Lopes, A.B.	2011	Teaching IFRS in Brazil: news from the front	<i>Accounting Education</i>
25	Larson, R.K. and Brady, T.J.	2009	Incorporating IFRS into the accounting curriculum	<i>Strategic Finance</i>
26	Larson, R.K. and Street, D.L.	2011	IFRS teaching resources: Available and rapidly growing.	<i>Accounting Education</i>
27	Madawaki, A.	2012	Adoption of International Financial Reporting Standards in developing countries: the case of Nigeria	<i>International Journal of Business and Management</i>
28	Martin, P., Mezon, L., Forristal, T., Labelle, R., Redcliffe, V.S. and Gaa, J.C.	2008	International Financial Reporting Standards are coming: Are you ready?	<i>Accounting Perspective</i>
29	Milne, M.J. and McConnell, P.J.	2001	Problem-based Learning: A pedagogy for using case material in accounting education	<i>Accounting education: An International Journal</i>

30	Mintz, S.M.	2010	Implementation concerns about IFRS adoption in the U.S.	<i>Journal of International Business Education</i>
31	Munter, P. and Reckers, P.M.J.	2009	IFRS and collegiate accounting curricula in the United States: 2008 A survey of the current state of education conducted by KPMG and the education committee of the American Accounting Association.	<i>Issues in Accounting Education</i>
32	Munter, P. and Reckers, P.M.J.	2010	Uncertainties and budget shortfalls hamper curriculum progress on IFRS	<i>Issues in Accounting Education</i>
33	Nilsen, K.	2008	On the verge of an academic revolution	<i>Journal of Accountancy</i>
34	Paul, A. and Burks, E.	2010	Preparing for International Financial Reporting Standards.	<i>Journal of Finance & Accountancy</i>
35	Pounder, B.	2011	Preparing for continual change	<i>Financial Executive</i>
36	Schipper, K.	2003	Principles-based accounting standards	<i>Accounting Horizons</i>
37	Shkurti, R., and Naqellari, M.A.J.	2010	Quality of financial and accounting information in Albania as perceived by the practicing accountants	<i>Journal of Accounting Education</i>
38	Singleton-Green	2010	Commentary: IFRS-The SEC's roadmap and the contribution of the academic community.	<i>Australian Accounting Review</i>
39	Smith and Von Bergen	2009	The human side of IFRS	<i>The CPA Journal</i>
40	Stokes, Isaacson and Clopper	2011	The rush to IFRS: Practice vs academe, is the need to change the CPA exam genuine?	<i>Journal of Modern Accounting & Auditing,</i>
41	Thomas, J.	2009	Convergence: Businesses and business schools prepare for IFRS.	<i>Issues in Accounting Education</i>
42	Thomson, J.C.	2008	Take Action on IFRS Now!	<i>Accounting Today</i>
43	Wells, M.J.C.	2011	Framework-Based Approach to Teaching-Based Accounting Standards	<i>Accounting Education</i>

44	Wolosky, H.W.	2009	Convergence: What firms are doing now	<i>Practical Accountant</i>
45	Zhu et al.	2011	User-oriented IFRS education in introductory accounting at U.S. academic institutions: Current status and influencing factors.	<i>Issues in Accounting Education</i>