Academic Track
Integrating XBRL into the Accounting Curriculum
Ernest Capozzoli and David Gundersen
Thursday, October 27 2011
Integrating XBRL into the Accounting Curriculum

- This presentation will discuss the implications of XBRL adoption and accounting curriculums.
- Comparison of Rivet Crossfire and Rivet Dragon Tag XBRL assignments will be shared
- Suggestions for next steps
As XBRL becomes more widespread, accounting curriculums must integrate XBRL content.

Content should be comprehensive and touch many courses.

Material such as assignments and tool use must also be considered.

Multiple taxonomy usage must be a requirement.
Course areas that will be impacted:
- Accounting Information Systems
- Financial reporting
  - Basic financial statements
  - Disclosures
- International
- Auditing
Integrating XBRL into the Accounting Curriculum

- To address course content assignments have been developed and delivered:
  - Basic financial statements – using the USGAAP taxonomy in Accounting Information Systems
  - Advanced financial reporting – using the USGAAP taxonomy for selected detail tagging of disclosures.
  - International financial statements – using the USGAAP and IFRS taxonomy in an International class
  - Auditing – still under development
## Table 1

Significant Main Effects:
Multivariate and Univariate Analyses for Assignments #1, #2, and #3

<table>
<thead>
<tr>
<th>Class Assignment</th>
<th>Group Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multivariate: F</td>
</tr>
<tr>
<td>Univariate:</td>
<td></td>
</tr>
<tr>
<td>Score</td>
<td>2.195</td>
</tr>
<tr>
<td>Time</td>
<td>.689</td>
</tr>
<tr>
<td>Taxonomy</td>
<td>2.588</td>
</tr>
<tr>
<td>Assignment</td>
<td>.176</td>
</tr>
</tbody>
</table>

* p ≤ .05; ** p ≤ .01; *** p ≤ .001;
Basic Financial Reporting – Crossfire Comparison (In hours)

<table>
<thead>
<tr>
<th>Application</th>
<th>Balance Sheet</th>
<th>Income Statement</th>
<th>Cash Flows</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dragon Tag</td>
<td>2.57</td>
<td>3.12</td>
<td>2.53</td>
<td>400</td>
</tr>
<tr>
<td>Crossfire</td>
<td>3.00</td>
<td>4.26</td>
<td>2.86</td>
<td>70</td>
</tr>
</tbody>
</table>

Task Times are similar
## Integrating XBRL into the Accounting Curriculum

### Advanced Financial Reporting

<table>
<thead>
<tr>
<th></th>
<th>Hours</th>
<th>Assignment Difficulty</th>
<th>Taxonomy Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Policies</td>
<td>2.63</td>
<td>5.47</td>
<td>6.14</td>
</tr>
<tr>
<td>Debt</td>
<td>4.03</td>
<td>6.75</td>
<td>6.71</td>
</tr>
<tr>
<td>Accrual and Taxes</td>
<td>2.95</td>
<td>5.76</td>
<td>5.76</td>
</tr>
<tr>
<td>Pension</td>
<td>6.61</td>
<td>7.75</td>
<td>7.88</td>
</tr>
</tbody>
</table>
## Detail Tagging – Crossfire Comparison (In hours)

<table>
<thead>
<tr>
<th>Application</th>
<th>Accounting Policies</th>
<th>Accruals and Taxes</th>
<th>Pensions</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dragon Tag</td>
<td>2.63</td>
<td>2.95</td>
<td>6.61</td>
<td>29</td>
</tr>
<tr>
<td>Crossfire</td>
<td>2.75</td>
<td>2.80</td>
<td>6.75</td>
<td>15</td>
</tr>
</tbody>
</table>

Task Times are similar
## Integrating XBRL into the Accounting Curriculum International Financial Reporting

### Table 3: International Financial Reporting

<table>
<thead>
<tr>
<th></th>
<th>N=20</th>
<th>Hours</th>
<th>Assignment Difficulty</th>
<th>Taxonomy Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coke-USGAAP</td>
<td>5.17</td>
<td>5.50</td>
<td>6.42</td>
<td></td>
</tr>
<tr>
<td>Fiat IFRS</td>
<td>6.68</td>
<td>7.73</td>
<td>8.27</td>
<td></td>
</tr>
<tr>
<td>Coke-IFRS</td>
<td>4.52</td>
<td>6.30</td>
<td>6.90</td>
<td></td>
</tr>
</tbody>
</table>
## Basic Financial Reporting IFRS – Crossfire Comparison (In hours)

<table>
<thead>
<tr>
<th>Application</th>
<th>Coke USGAAP</th>
<th>FIAT IFRS</th>
<th>COKE IFRS</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dragon Tag</td>
<td>5.17</td>
<td>6.68</td>
<td>4.52</td>
<td>20</td>
</tr>
<tr>
<td>Crossfire</td>
<td>5.30</td>
<td>9.10</td>
<td>6.23</td>
<td>13</td>
</tr>
</tbody>
</table>

Task Times are not similar – due to Crossfire not storing the IFRS taxonomy on the server
Server based but does an add-in to XL
Crossfire—Folder setup

- Folders used for each class this can be tedious
- 2010 classes were deleted by Rivet
Similar to Dragon Tag – depending on teaching approach this requires more effort
Integrating XBRL into the Accounting Curriculum Summary

- This presentation displayed the results of integrating XBRL into three course areas:
  - Basic financial reporting
  - Advanced financial reporting
  - International

- Results indicate that students master both the US and IFRS taxonomies as part of normal class assignments.

- These assignments were completed using Rivet Software’s Dragon Tag and Crossfire

- Task times are similar except for using the IFRS taxonomy
Integrating XBRL into the Accounting Curriculum
Next Steps

- Develop meaningful assignments - many cases have been developed and are available from Dr. Debreceny and Dr Capozzoli or through the American Accounting Association
- Master an XBRL tool such as Rivet Crossfire or Fujitsu
- Start slowly until you master the tool and the material.
- Share your results.
- Use Learn XBRL.net to grade assignments
LearnXBRL Login

Home
Student Registration
Faculty Registration

Log In
User Name (E-Mail):
Password:

Forgot Password?
Files are different.

```
<?xml version="1.0" encoding="utf-8"?>
  <link schemaRef
       type="simple" xlink:href="DigDeepTaxonomy.xsd" />
  <context
      id="Duration_1__1_2009_To_12_31_2009" />
  <entity
      identifier
      scheme="http://www.nyse.com">0123456789</entity>
</xbrl>
```

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<?xml version="1.0" encoding="utf-8"?>
  <link schemaRef
       type="simple" xlink:href="BasicFinancials.xsd" />
  <context
      id="Duration_1__1_2009_To_12_31_2009" />
  <entity
      identifier
      scheme="http://www.nyse.com">1234567890</entity>
</xbrl>
```
Compare

<us-gaap:CostOfGoodsSoldOilAndGas
countRef="Duration_1_1_2008_To_12_31_2008" unitRef="Unit1" decimals="-6">-15677600000</us-gaap:CostOfGoodsSoldOilAndGas>

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<us-gaap:CostOfGoodsSold
countRef="Duration_1_1_2008_To_12_31_2008" unitRef="Unit1" decimals="-6">-15677600000</us-gaap:CostOfGoodsSold>

<us-gaap:CostOfGoodsSold
countRef="Duration_1_1_2009_To_12_31_2009" unitRef="Unit1" decimals="-6">-15009000000</us-gaap:CostOfGoodsSold>
21st XBRL International Conference

“One Language, Common Vision: Role of XBRL Technology in the Post Crisis Era
19-21 October 2010
Beijing, China

Academic Track 6

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Ernest Capozzoli and David Gundersen

Wednesday October 20