

# **TOWARDS THE PATHWAYS VISION MODEL OF INTRODUCTORY ACCOUNTING**

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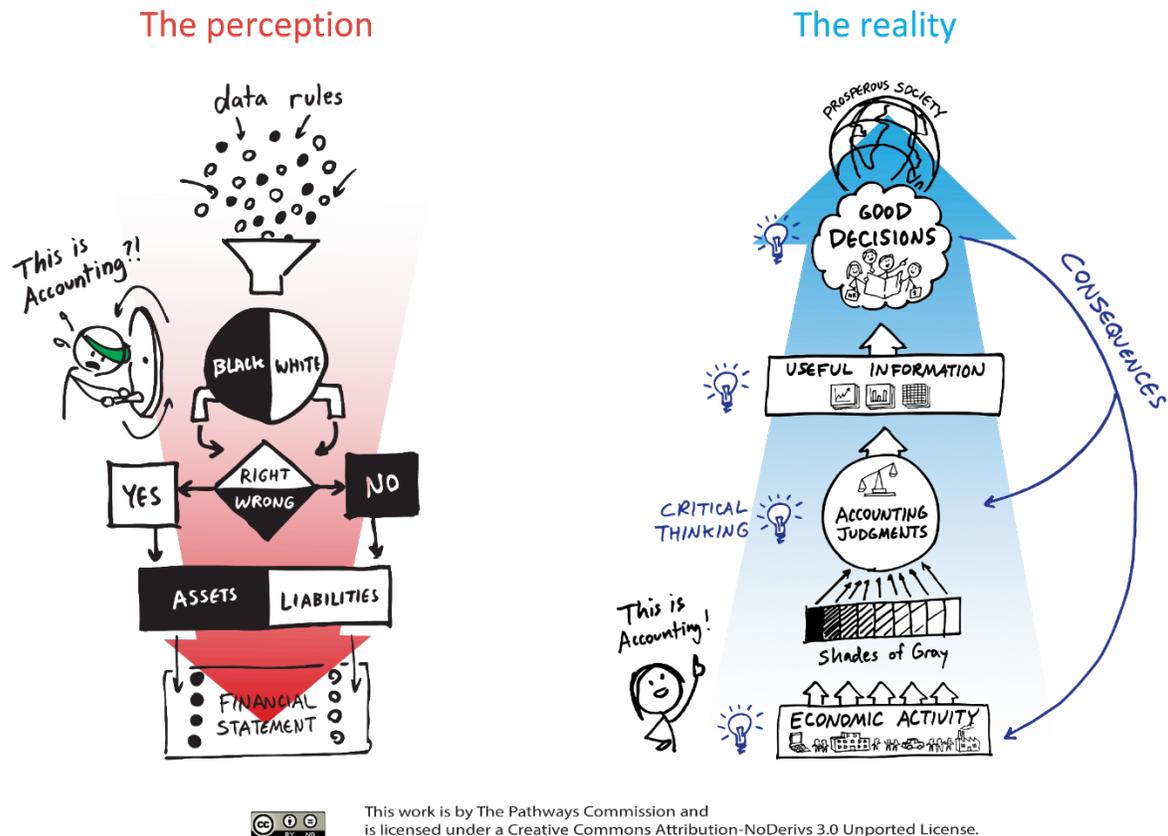
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The Pathways Vision Committee was chartered to create a vision to transform the first course in accounting to attract diverse, high-potential students. The American Accounting Association lauded the Vision Model for three overarching features that includes interdependent elements, a simple yet deep visual, and an inclusive approach.

## What is Accounting?



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The model is also consistent with a number of emerging trends in accounting education. Among them include recent literature related to the following topics.

- High quality teaching. There has been a shift in education from a teaching paradigm to a learning paradigm. High quality teaching is defined in terms of students meeting educational outcomes. High quality teaching requires systematic attention to curriculum and pedagogy and pursuing opportunities for renewal. Instructors need to assess student learning document it, explain problems and improve performance. Professional teaching strategies require planning and involvement to move students from observing and listening to doing and saying.
- Deepen critical thinking skills. Classroom activities are moving towards deep learning beyond memorization. Activities that require students to develop the ability

- to reason critically and exercise professional judgment by decision making processes that require addressing complex ambiguous practice situations.
- Competency based education instead of course based education. More colleges and universities are evaluating how to move from a content based to a competency based curriculum. Much of the focus has been related to learning outcomes based on what students can do in lieu of what students should know.

A Midwestern University attempted to apply the ideas of the Pathways Vision Model to the introductory accounting class in an online environment during the summer 2014 semester. Based on student feedback some adjustments for the fall 2014 semester and additional adjustments in spring 2015 course were made. The paper describes the approach used to make an online introductory class consistent with the Vision Model.

The majority of students enrolled in the program are working adults with an average age of 32. In addition, the University enrollment contains over 30% students of color making it one of the most diverse schools in the United States. In addition, most students had completed coursework at other schools

### **Theoretical Construct**

In an online environment the teacher becomes a facilitator, guide and coach in the teaching/learning process (Fajardo, 2015). This paradigm shift reflects the type of communication and the technology used in the process. Asynchronous (not in real time) dialogue was used in the class because it extended reflection time, allowing learners the opportunity to compose thoughtful, probing contributions. In addition virtual discussions provide little place for disengaged participants to hide or to fake involvement. In addition, online professional dialogue uses sophisticated telecommunications and technologies from learning management systems and publisher.

The pedagogical foundation of guided inquiry was used in the class. The National Science Foundation considers guided inquiry pedagogy front and center of effective teaching. Renowned experts in business training like Peter Senge use guided inquiry as a conceptual and pedagogical tool. Guided inquiry supports dialogue that allows learners to construct their own knowledge. (Collison, et al 2000)

The “Guide on the Side” proposed by Collinson (2000) was the prevalent teaching approach. The approach fosters a culture where participants take charge of their own learning as learners react to content, share challenges, teach each other and learn by putting into words (discussion postings) their own understanding and clarifications of assumption. Along the way the Guide on the Side serves to focus and deepen the dialogue without getting in the way of participants’ development of their own expertise.

### **Online Development Model**

The organizing framework that served as a checklist for curriculum design was the Quality Matters design standards for online and blended courses. The framework is organized around the following standards

1. The overall design of the course is made clear to the learner at the beginning of the course.
2. Learning objectives describe what learners will be able to do upon completion of the course.
3. Assessments are integral to the learning process and are designed to evaluate learner progress in achieving the learning objectives.
4. Instructional materials enable learners to achieve stated learning objectives.
5. Course activities facilitate and support learner interaction and engagement
6. Course technologies support learners' achievement of course objectives.
7. The course facilitates learner access to institutional support
8. The course design reflects a commitment to accessibility and usability for all learners.

### **Classroom Assessment**

Class assessments were influenced by training received at the University of Indianapolis. Marsha Huber presented Designing Classroom Assessment Techniques training. The training cited a Google study of 60 accounting syllabi from various courses (principles, tax, intermediate, costs, systems and auditing) that confirmed most assessments were focused on testing and homework. The overwhelming emphasis was on testing comprising 75-85% of the course grade, some online classes were 100% dependent on tests (Huber, 2009).

As a result of the work by Huber (2009), the syllabi in the introductory accounting class was revised to incorporate different methods of assessment. One goal of the course was to move towards written assignments to improve critical thinking skills. An emphasis on real life examples and having students reflect on their learning was incorporated into the class. In addition direct assessment of student learning through the use of a pre and post-test design was the primary approach used for assessing learning, and replaced the emphasis on indirect measures of student learning like student evaluations that describe how students feel about their learning.

The syllabi identified the following points students could earn from assessment activities.

	<b>Points</b>	<b>%</b>	
<b>Preparation</b>			
Practice final	25	3.8%	
Adaptive learning practice	50	7.7%	
Total preparation	75		11.5%
<b>Testing and Homework</b>			
Weekly Homework	200	31%	
Comprehensive final examination	150	23%	
Total testing and homework	350		54%
<b>Writing assignments</b>			

Online discussions	50	7.7%	
Homework Helper reflection paper	50	7.7%	
Case studies	50	7.7%	
Annual Reporting Project	75	11.5%	
Total writing assignments	225		34.5%
Total	650		100%

### **Learning Activities**

Students were awarded participation points for completing a 50 question multiple choice exam during the first week in class. The practice final questions were randomly assigned from the textbook test bank. The exam parameters directed the learning management system (D2L) to select either 3 or 4 questions per chapter from a test bank of 140 questions per chapter to make it a randomized exam. The likelihood that any two students received the same exam during the practice final was remote. This pretest provided a reliable and valid method to measure student performance at the beginning of class. The practice final provided a method to assess learning directly when student performance was compared to the final. .

An additional benefit of the practice exam was students who scored well were encouraged to take a waiver exam and test out of the class. Since many transfer students were required to repeat introductory accounting due to transfer equivalency issues, the pretest helped to confirm the competencies of students. Another significant benefit was the use of a practice final to take the pressure off of a high stakes comprehensive final exam. The practice final appeared to reduce the anxiety associated with the final because the practice final provided the size and scope of questions asked on the final exam. Finally, the practice final reduced any potential technical difficulties associated with taking the exam online.

The pretest and final exam were used to assess the learning objective of measuring whether students demonstrated a mastery of the subject matter. The average score of students completing the pretest was 22 and 20 out of 50 questions respectively. The average score of students completing the final exam was 34 and 36 which demonstrated a learning improvement of 60 and 56% respectively.

The class relied on the adaptive learning resources of the textbook. Adaptive learning is the next generation of textbook support reflecting the increased emphasis placed on curriculum design. At this stage of development, most accounting texts have defined learning objectives and the ability for instructors to filter content by learning objectives. The pace of the class included one chapter per week. The textbook functionality allowed the instructor to select a practice deck of questions based on learning objectives for the chapter to introduce students to the material and allow them to practice. Adaptive learning requires students to identify their confidence in their answers before submitting to reinforce the learning objectives. The adaptive learning practice set of questions was scheduled for students to complete in 20 minutes although it was recognized most students may take three times the amount of time. The best students spent less time preparing while other students required more time to develop their skills. Students were

encouraged not to spend more than 1 hour per week on practice activities. By the end of the week, students were required to prepare answers to weekly homework assignments in the publisher's learning management system.

Between the adaptive learning at the beginning of the week and the homework assignments at the end of the week, students were required to post a response to the question of the week during the 13 weeks of instructions. The questions were mostly open ended and emphasized a grey matter such as, "Do you think Property Plant and Equipment should be valued at Fair Market Value?" The purpose of this type of question was to encourage students to develop their critical thinking skills by taking a position and recognizing that there was more than one reasonable alternative. Over the course of the semester over 600 discussion postings were generated from a class of 24 students. The grading rubric used for discussion postings is listed in the Appendix.

By the end of the week, after discussions and guided problem solving examples were available, students were required to complete homework assignments related to the topic.

Students could earn 5 points at the beginning of the week working on adaptive learning activities that prepared students to learn the material. Students could earn 20 points a week for the homework assignment required to be completed at the end of the week. The point differential was based on beginning of the week work required individual practice without the benefit of support and instruction from the class and the instructor. Students were able to drop the three lowest scores from each activity.

In addition to the required weekly adaptive learning and homework exercises, each student was required once during the semester to serve as the homework helper. The homework helper's role was to complete the homework assignment three days before the due date and post a reflection on completing the homework. The goal of homework helper was to help learners reflect on their learning by writing their experience in three steps.

1. What? Report the facts and events of an experience, objectively.
2. So What? Analyze the experience.
3. Now What? Consider the future impact of the experience on you

Approximately half the class reviewed the homework helper postings each week.

The final assessment tool used in the course was the Annual Reporting Project. Most introductory textbooks include a set of financial statements in the Appendix and the textbook often refers to the statements in explaining key concepts. The financial statements of a publicly traded were presented in the textbook appendix. However the most current financial statements of publicly traded company were not presented in the textbook. As a result the assignment required students to complete the following steps.

1. Access the most current 10k of the company from Edgar and enter the financial statement information into an excel template (created by the instructor) with the prior

- year financial statement information. There were four tabs in the Excel Spreadsheet with Balance Sheet, Income Statement, Statement of Cash Flows and a Ratio Tab.
2. Research the company including reading the Management Discussion and Analysis section of the 10k to identify risks to the Company.
  3. Chart the stock price of the Company.
  4. Prepare vertical and horizontal analysis of the financial statements.
  5. Calculate ratios and identify the ratios as stronger/weaker than the industry.
  6. Identify a written summary outlining if students would recommend the investment to a family member.

Grading rubrics were developed for classroom discussions, the case studies, and the annual report projects.

The major change implemented in the spring 2015 section of the class was to include an accounting cycle problem. In the past, textbook supplements were offered in the next financial accounting course to build accounting cycle skills. However, in the recent addition of the introductory text, a complete accounting cycle exercise was built into the homework management system of the textbook allowing the exercise to be easily assigned.

Much has been made of the differences associated with a user and preparer approach to introductory accounting. The course as currently designed requires students to learn both approaches to learning accounting. The accounting cycle is required to be completed between week 3-6 after reviewing the accounting cycle, while the annual report project starts in week 7 after discussion of financial statement analysis.

Based on the curriculum design of the class, there was a number of features that moved the class in the direction of the Vision Model including:

- Students were required to understand and apply accounting rules and principles. The homework and textbook assignments involved students learning fundamental concepts and applying them to solve exercises.
- Students were required to learn and apply financial statement analysis tools. The annual report project required students to calculate ratios, and vertical and horizontal analysis in Excel and use the information to form a judgment in determining whether the company was a good investment.
- Students were required to explain their understanding of accounting by answering questions about grey areas. Questions of the week and small cases studies focused on ethics and other topics were designed for students to explain their understanding and consider consequences.
- The requirement for students to form judgments about accounting practices by making convincing arguments on topics and using persuasive reasons to support their position. Discussions about Core Earnings and Earnings Management helped students to understand there is more than one method to prepare financial statements and the recognition that financial statements include a significant amount of estimates. In addition, the financial statement analysis project required students to evaluate a publicly traded company.

Future direction for the class will include course design efforts to improve real-time and real-place educational sessions. Asynchronous communication may have limitations such as the lack of body language from which the instructor can gauge the interest of participants and consequently adjust the tone or pace of the presentation. Future direction of the class will likely add a third dimension in the form of synchronous (live) class sessions that make use of voice-over-the-internet (VOIP) technology to provide a voice/visual environment.

## REFERENCES

Collison, G. Elbaum, B, Haavind, S. Tinker, R. 2000. *Facilitating online learning: Effective strategies for moderators*. Atwood Publishing. Madison, WI.

Fajardo, C. 2015. *Best practices for teaching accounting courses online*. Accounting Instructors Report.

Huber, M., 2009. Improving Teaching and Learning through SMART Assessment Techniques, *Measuring Learning Rather than Satisfaction in Higher Education* (pp. 157-175), Sarasota, FL: American Accounting Association.

The Commission on Accounting Higher Education: Pathways to a Profession. Available at: [www.PathwaysCommission.org](http://www.PathwaysCommission.org)

Wild, J.J. (2015). *Financial accounting: Information for decisions*. McGraw-Hill Education. New York.

## APPENDIX 1

Discussion Participation Grading Rubric				
Criteria	Non-performance	Basic	Proficient	Distinguished
<b>Applies relevant course concepts, theories, or materials correctly.</b>	Does not explain relevant course concepts, theories, or materials.	Explains relevant course concepts, theories, or materials.	Applies relevant course concepts, theories, or materials correctly.	Analyzes course concepts, theories, or materials correctly, using examples or supporting evidence.
<b>Collaborates with fellow learners, relating the discussion to relevant course concepts.</b>	Does not collaborate with fellow learners.	Collaborates with fellow learners without relating discussion to the relevant course concepts.	Collaborates with fellow learners, relating the discussion to relevant course concepts.	Collaborates with fellow learners, relating the discussion to relevant course concepts and extending the dialogue.
<b>Applies relevant professional, personal, or other real-world experiences.</b>	Does not contribute professional, personal, or other real-world experiences.	Contributes professional, personal, or other real-world experiences, but lacks relevance.	Applies relevant professional, personal, or other real-world experiences.	Applies relevant professional, personal, or other real-world experiences to extend the dialogue.
<b>Demonstrates understanding of accounting theory</b>	Does not discuss accounting theory (principles, assumptions, & constraints)	Identifies accounting theory but lacks relevance	Applies relevant accounting theory to the discussion.	Applies relevant accounting theory and extends the discussion.

## APPENDIX 2

### Annual Report Project Rubric

	Distinguished	Proficient	Basic
<b>ARP 1 Financial Statements</b> 9 points	Retrieves current year financial statements and updates the excel spreadsheet with correct line items itemized and correctly uses formulas to summarize subtotals and totals	Retrieves current year financial statements and updates the excel spreadsheet with correct line items itemized.	Retrieves current year financial statements and updates the excel spreadsheet
<b>ARP 2 Company Analysis</b> 12 points	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
<b>ARP 3 Stock Market Activity</b> 6 points	Summarizes current stock market quote and history in a format that facilitates a market performance analysis.		Summarizes current stock market quote and history
<b>ARP 4 Industry Comparisons</b> 15 points	Properly retrieves and places industry averages in the excel spreadsheet and correctly identifies most ratios of the Company as being stronger or weaker than the industry. Describes the meaning of the ratio.	Properly retrieves and places industry averages in the excel spreadsheet and correctly identifies most ratios of the Company as being stronger or weaker than the industry.	Properly retrieves and places industry averages in the excel spreadsheet.
<b>ARP 5 Ratio Analysis</b> 18 points	Specific position takes into account the complexities of an issue. Others' points of view are acknowledged within position.	Specific position (perspective, thesis / hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis / hypothesis) is stated, but is simplistic and obvious.
<b>ARP 6 Conclusion</b> 15 points	Conclusions and related outcomes are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.