Writing Audit Programs for Tests of Controls: A Practice-Based Pedagogical Methodology

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Abstract

This paper offers a unique approach to presenting internal control within the classroom, culminating with a lasting framework for writing audit programs for the study and evaluation of internal controls for the external audit. A methodology is suggested to learn and understand internal controls in a visual, interactive environment that enables students to see the control in the flow of the transaction. The approach is structured across two stages: (I) understanding accounting systems and internal controls, and (II) designing audit programs for tests of controls. Stage I incorporates three steps: (1) obtain an understanding, (2) identify cycle key controls, and (3) design tests of controls. Once the students have an understanding of the cycle and controls, Stage II allows students to write audit programs for tests of control using a dual classification of tests – directional and document.

Keywords: audit programs, internal control, control testing, audit programs, role playing.

Introduction

Auditing is arguably the most atypical of all accounting courses. Historically, it is embodied within the traditional accounting curriculum, since it is the study of the evaluation of control systems and reporting processes of accounting-related information. Yet, while auditing has evolved within an accounting context, utilizing existing accounting theories, it is unlike its other conventional accounting offerings. Audit theories and applications are often grounded in the social sciences, e.g., psychology and sociology. Its texture is qualitative rather than quantitative – it is a course of words rather than numbers. Thus, at times it offers no definitive answers to individual practical problems, e.g. “it all depends.” Ultimately, auditing resembles as much the study of accountANTS, as the study of accountING. Accordingly, since the subject matter of auditing is inherently grounded in individuals, the practice of auditing must be applied on a case by case basis.

To further complicate the pedagogical challenges of teaching auditing, it is a difficult subject area to inspire students’ interest, enthusiasm and commitment. For many current and former auditors, the practice of auditing is the most exciting of all accounting careers. The opportunity to study and become proficient with a myriad of industries, products and/or services affords the individual an occupation of diversity, challenge and fulfillment. Unfortunately, the theoretically-based auditing curriculum, due to its unique nature, does not reflect the excitement inherent in the practice of auditing. This could be explained through a number of independent, although not mutually exclusive, reasons.
Clearly, the lack of “hands-on” experience in the field of auditing hinders the ability of the student to fully assimilate the theoretical constructs embedded within the audit course. Effective auditing requires multi-skilled individuals capable of not only understanding accounting principles and applications, but also the methods to measure their appropriateness within an environment of risk and uncertainty. The opportunity to see and feel an accounting cycle creates a great synergy for learning in the classroom. Unfortunately, most accounting majors do not possess “real life” experiences.

Perhaps the frustrations of audit education are due to the contemporary design of auditing textbooks.1 Few of the auditing texts available on the market today utilize a true practice approach to the application of audit techniques. Instead, most textbook writers continue to employ a conceptually-based framework. For example, instead of designing textbooks according to the conventional audit approach – planning, internal control review, substantive testing, and reporting – the modern auditing text introduces reporting in the earliest of chapters (e.g., Arens et al. [2010]), covers both statistical methods together prior to introducing the internal control cycles and substantive testing (e.g., Louwers et al. [2011], Messier [2010], Rittenberg [2012] and Whittington and Pany [2012]), or combines the presentation of internal control and substantive testing in the same chapters (e.g., Arens et al. [2012], Louwers et al. [2011], Messier [2010], Rittenberg [2012] and Whittington and Pany [2012]). This latter strategy is troublesome since it does not mirror the interactive nature of these sequential stages of the independent audit.

A more elusive explanation for the difficulties of audit education may be the type of pedagogical “culture shock” to which accounting majors are asked to adapt – a culture shock for which they are generally not well prepared. During their prior accounting course work, students have been conditioned to struggle with a traditional approach of theory to practice within the context of quantitatively-based theories and problem solving. Moreover, is it likely that the demands of the accounting curriculum create an almost addictive need to punch a calculator to succeed. Suddenly, in their senior year, they are asked to break a conditioning that has become not only a perceived means to succeed, but a conditioned mechanism to build confidence.

If audit instructors could reflect the excitement, and unique physical and cognitive challenges of public accounting work, it is possible that students would demonstrate a greater interest in learning the practice of auditing. In other words, as the interpreter of audit theory, the instructor must create a strong, curious desire to “feel” audit applications. Many auditing instructors will attest that this is much easier to state than to apply.

This paper does not attempt to introduce a new vision or modification of systems and controls. Collectively, auditing textbooks have similar models and descriptions. Rather, this paper integrates existing academic and practical knowledge to propose a new instructional design – a physical, interactive application of internal control theory. Specifically, this paper offers a two-stage approach to the presentation of internal control, and provides a framework to teach accounting majors how to write audit programs for tests of controls. In the first stage, the auditing student is directed to obtain a thorough understanding of the flow of the transaction and its related controls. Once this understanding is established, auditing students will have a blueprint to write audit programs for tests of controls. Essentially, an interactive classroom discussion, coupled with a simple directionally designed model, can effectively facilitate a student’s perceived capability to understand control testing along with an increase in satisfaction with this auditing area. Moreover, an auditing student who can independently write audit programs for tests of controls has demonstrated a credible proficiency with the control theory portion of the course.

The Role and Importance of Internal Control

In “The Internal Control Explosion” Maijoor [2002] proposes that “auditing has shifted from auditing outcomes to auditing systems, and internal control has become the subject of public policy debates on the regulation of corporate governance and the regulation of auditing” (p. 101). His choice of the word “explosion” to describe the evolving

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1 Knechel [2000] argued that students should be introduced to modern audit methods including control and risk analysis. He concludes that audit textbooks fail to incorporate these methods in a meaningful manner.
prominence of internal controls is powerful and expedient, and expressly appropriate for the current status of
internal control. The role and importance of internal control has been strongly recommended (The Bedford Report
[1986], The Treadway Commission [1987], AECC [1990] and COSO [1974]), legislated (FCPA [1977], USA
Patriot Act [2001], SOX [2002]) and mandated (AICPA [1972], AICPA [1988], AICPA [1995], PCAOB [2004]).

In response to the explosion of internal control, audit education has been challenged to adapt and evolve. The
Bedford Report [1986], Treadway Commission [1987], the Accounting Education Change Committee [1990] and
the National Institute of Justice [2007] provided guidance for audit educators to effectively prepare their students for
audit-related careers. And, audit curriculum has responded. Bryan and Smith [1997] surveyed 223 auditing
professors regarding the importance of 34 auditing topics. Internal control was ranked third. In 2003, the Auditing
Section Education Committee of the American Accounting Association (Johnson [2003]) analyzed 151 auditing
course syllabi from 130 faculty representing 95 schools, and found internal control covered in 96% of the syllabi
submitted. Armitage [2008] looked at changes in the importance of audit education topics from two worldwide
surveys. In both surveys, “understanding internal control’ was ranked in the top five from a listing of 41 auditing
topics, and the 2005 survey ranked internal control second. In a survey of 276 auditing faculty affiliated with the
AACSB, internal control and risk assessment category ranked second [Blouch et al. 2009]. Armitage and Poyzer
[2010] extended this area of research through a survey of academicians and practitioners views of the importance
of topics in the first auditing course. Understanding internal control was ranked third.

While understanding internal control was identified as a critical component of an auditing course curriculum, there
was less consensus regarding the importance of testing internal controls. Tests of controls were ranked mid to low
in two surveys (Armitage [2008] and Armitage and Poyzer [2010], sixth out of 15 in importance [Blouch et al.] [2009])
and tied for third out of 31 auditing topics [Byran and Smith 1997]. This inconsistency could be due to
design issues, but a more plausible explanation may be twofold. Understanding tests of controls is a singular,
generic descriptor while tests of controls include multiple cycles which are more detailed and less conceptual than
the higher-ranked auditing topics. In addition, not all instructors will cover all of the cycles identified in these
surveys. It is unlikely that understanding internal controls does not incorporate some degree of testing – otherwise
there is no understanding. In a survey of audit management, Bierstaker and Wright [2004] noted that test of controls
have become more important. Armitage [2008] observed that the lower ranking of tests of controls may be
attributed to professors placing importance on other topics, and proposes that the auditing classroom has not kept
pace with practice. Finally, to truly understand internal control, the design and implementation of control tests must
be incorporated in order to bring true understanding.

This paper offers a role playing methodology to teach internal control cycles and design tests of controls in the
contest of an audit program. The next section discusses role playing and its use in the auditing course.

Role Playing in the Classroom

Role playing – a subset of simulations – has been a well documented educational technique. Yardley-Matwiejczuk
[1997] defined role playing as “a way of constructing an approximation of a ‘real-life’ experience, but under
controlled situations” (p. 1). Further, van Ments [1997] described role playing as “one particular type of simulation
that focuses attention on the interaction of people with another. It emphasizes the function performed by different
people under various circumstances” (p.15).

Role playing has been advanced by authoritative commissions. The Bedford Report [1986] encouraged accounting
faculties to adopt new and more relevant instructional methods, i.e., participatory approaches, including role
playing. The Accounting Education Change Commission [1990] suggested that students be active, not passive,
recipients of information. One method mentioned was simulations. Further, the Commission advocated
implementing teaching methods that provide opportunities for students to experience public accounting work
patterns.
Deductive research in audit education has drawn the same conclusions. Bonner [1999] develops a framework for choosing teaching methods in accounting courses. She concludes that learning objectives involving complex skills require an active learning environment. Further, accounting educators can reach students through physical demonstrations, i.e., where audit students assume the roles of individuals who process documents within the transaction cycles. In addition, she argues that elaboration of concepts learned can be strengthened by asking students to articulate the importance of individual controls. Drawing from behavioral research in auditing, and the current trends in audit practice, Kneckle [2000] suggests that instructors develop and implement instructional materials where the student is an active participant in a dynamic and interactive learning experience. He identifies role playing as an effective approach to illustrate the diverse aspects of audit practice. Arens and Elder [2006] discuss the implication of Sarbanes Oxley (SOX) for audit education. They maintain that the enactment SOX has required auditors to have a greater knowledge of controls, i.e. understand and document controls. Further, they propose that students must be able to link control assessment to substantive testing. Unfortunately, they conclude, most accounting faculty place relatively little emphasis on controls and the control environment. McMillen [1994] examined the judgement/behavior gaps between auditing students/staff auditors and experienced auditors. He concludes that role playing scenarios can aid students and newly hired auditors to adopt a mind-set more in line with experienced auditors.

Despite broad encouragement to incorporate role playing into the classroom, the accounting/auditing literature on this teaching method has been sparse and narrowly applied. The most common role playing methodologies use client interviews as a medium to engage students. For example, Cheuk [2009] and Bagley and Harp [2012] propose cases where students as auditors pose questions to the instructor/client. Further, Johnstone and Muzatko [2002] and Janvrin [2003] use a case-based approach with students playing the roles of both client and auditor. A variation of this method engages the students to act out audit scenarios such as using novels, (Crumbley et al. [1994]), conflict resolution (Craig and Amernic [1994]) and student movies (Kaciuba [2012]).

This paper offers a new and unique role playing methodology for the study of transaction cycles and internal controls. Our approach is different on a number of levels. First, role playing articles presuppose an understanding of the fundamental audit concept(s), while our approach concentrates on presenting the fundamentals. While interviewing and acting out are effective applications of practice, they are not designed to stop the action for analysis and discussion. In addition, our delivery of control concepts replicates practice by demonstrating how auditors learn client systems, identify controls and design tests of control.

The following two stage approach to understanding systems and controls, and writing audit programs for tests of controls, can complement an auditing student’s efforts to master this topical area. Stage I presents a three step approach to obtaining an understanding of systems and controls, and Stage II offers a technique for writing audit programs for tests of controls. Exhibits of classroom handouts are provided in the discussion.

**Stage I – Strategy for Understanding Accounting Systems and Internal Controls**

Internal control theory is normally introduced in the early weeks of the auditing course, followed soon after by detailed descriptions of major income statement based cycles, e.g., revenue, expenditure, payroll and production. At this phase in the course, students are beginning to grapple with the unique nuances of the course, yet still struggling with finding associations to their own definitions of what an accounting course should be – a definition grounded in previous quantitative-styled accounting courses. Ironically, this is an ideal time to provide the class with a perceptual, practical overview of internal control. Once the students have been introduced to the framework of an internal control review (Exhibit I), a three step strategy to understanding systems and controls can be applied for the transaction cycle under discussion (See Exhibit II). These steps can be presented separately or in concert to provide a more comprehensive explanation of systems and controls. In order to facilitate this discussion, the creation of an expense and liability in the expenditure cycle will be used as a model (See Flowchart). However, the methodology proposed in this paper can be applied to any transaction cycle.
Step 1: Obtain an Understanding
The first step in this strategy is the most crucial. Unfortunately, students can be frustrated at this stage in their attempts to conceptualize and formulate a reliable framework for understanding cycles and controls. Inevitably, the classroom becomes the environment to introduce, clarify and bring realism to the flow of the transaction. In fact, the knowledge each student gains in this segment of the course has direct application to “real world” accounting systems. Within a structured umbrella of functions and departments, the unique flow of each cycle can be studied under one approach.

Initially, the instructor should assign functional responsibilities to individual students – functions specific to the cycle under study. For example, in the expenditure cycle, individual roles would include the raw material stores manager, purchasing manager, receiving dock manager and accounts payable clerk (See Exhibit III). Once responsibilities have been assigned, the discussion begins at the start of the transaction cycle, and moves to the eventual creation of a journal entry. Each function becomes a “spotlight” to discuss procedures and the transaction flow. Exhibit IV provides a listing of potential questions that can be posed to the students playing the client roles. The process is connected with simple 8 ½ x 11 handouts which are systematically distributed throughout the class as the transaction develops (See Exhibit V for samples).

This approach provides an interactive medium for discussion of the key functions and documents within the context of a realistic accounting cycle. Moreover, at any point in the discussion, the transaction can be paused to isolate procedures and controls. Further, the systematic nature of the transaction flow can be locked in time – what has already occurred in the past, how it affected the present junction, and how it will affect the future of the transaction. Thus, not only does this approach create an interesting environment for learning, but it also provides a medium for appreciating the interactive characteristics of the transaction flow.

Step 2: Identify Cycle Key Controls
Once the student has a thorough understanding of the flow of the transaction, s/he must begin to integrate the key controls embedded within the cycle. This can be achieved two-fold. First, a handout of key controls, which the instructor wishes to emphasize, provides a definitive aggregate (See Exhibit VI for examples). Once the student has a scope of key controls, then each control can be folded into the interactive transaction review of the Step 1, “Obtaining an Understanding.”

Conceptualizing a single control or group of integrated controls can be challenging at this stage of the students’ learning curve. However, the ability to stop the transaction to isolate a control can facilitate a more thorough understanding of the role of that control within the cycle’s overall internal control system. For example, once the accounts payable department has received the requisition, purchase order, receiving report and vendor’s invoice, it is necessary to review and approve the voucher package prior to recording the entry. With this pedagogical method, the student can look back at the creation of each document in order to understand the need for controlling the processing of payables, and at the same moment look ahead to the upcoming controls to properly record and post the transactions to the appropriate ledgers. In other words, students can visually and physically experience the control under study.

Step 3: Designing Tests of Controls
If the student has a sound, thorough understanding of the flow of the transaction along with a scope of key controls, the creation of individual tests of control is simple – re-perform the client’s actions. For example, if the client has implemented an authorization control for purchase order processing, the auditor must test the evidence of approval, e.g. signatures, initials, or internal password logs. Or, since voucher registers must be footed to ensure the accuracy for later postings, the auditor must test the valuation control through manual re-performance or a generalized audit software package. In other words, once a student has a vision of the control and its purpose, the test becomes a measure of compliance with client control procedures. At this point, continuity can be achieved by writing audit programs for tests of controls, i.e., the audit program can provide closure of the topic.
Stage II – Strategy for Designing Audit Programs for Tests of Controls

If auditing students can write a cohesive collection of control tests with an underlying continuity to the system under examination, it is likely that they have assimilated a sound understanding of internal control theory and practice. Moreover, once they have grasped the previous steps of obtaining an understanding, the audit program becomes merely a summary of the knowledge they have already gained.

A framework for writing audit programs for tests of control is presented in Exhibit VII. Normally, internal control audit programs are two audit programs in one. Each program appears to perform the same tests but is differentiated by the direction of the tests through the transaction. Specifically, an audit program for tests of controls measures compliance, by testing forward in the transaction for completeness and backwards for existence. That is, from source document to general ledger for completeness tests, and general ledger to source documents for existence tests.

The categories of tests are first distinguished according to the extent of physical maneuvers performed by the auditor, i.e., document tests versus direction tests. Document tests are performed on a self-contained package/document which holds the evidence of the effectiveness of the control under study. While multiple documents may need to be reviewed to adequately test the control, the auditor’s physical action is limited to the respective document(s) and its control(s). Document controls would include authorization, timeliness, valuation, classification and accounting.

Direction tests, in contrast, require a physical act of comparison. In other words, the auditor must compare evidence from one document package to another within a logical flow of the transaction to test for completeness and existence. Initially, this can be frustrating for the auditing student, since they have not had experience in the field. However, an understanding of the flow of the transaction across documents and functions (Stage I) becomes the basis for effectively articulating directional testing. SAS No. 31 “Evidential Matter” [AICPA 1980] defined existence and completeness among the management assertions which are embodied within the financial statements.

The completeness assertion addresses “whether all transactions and accounts that should be in the financial statements are included” [AICPA 1980]. In order to test this assertion, the control test must begin at the beginning of the transaction – the source document – and carried forward to its ultimate entry in the general ledger, trial balance or financial statements (limited to general ledger for clarity). If a transaction occurred, but was never recorded, this test is designed to find that transaction. The existence assertion measures “whether assets or liabilities included in the financial statements exist at the balance sheet date and whether recorded transactions occurred during the period covered by the income statement.” [AICPA 1980]. This test begins at the end of the transaction – the general ledger – and moves backwards through the transaction to the source document. It is designed to detect transactions that were recorded, but have no evidential support, and are thus fictitious.

In summary, with Stage I already completed, the auditing student merely performs a transaction “walk-through,” in both directions, stopping at each key control to perform one of the document tests. With a little practice, this approach achieves its goal of audit program design. Exhibit VIII provides an audit program for tests of controls for the creation of a payable accrual in the expenditure cycle.

Student Feedback and Retooling

Our University is a public institution located in New England. The auditing course is offered in the senior year after successful completion of the intermediate accounting classes. The student body consists primarily of commuters, however, most are traveling from off-campus housing, and approximately half the enrollments are from out-of-state. Senior accounting majors have an average GPA of 3.2 with 122 earned credit hours. SAT mean scores are 468 for verbal and 518 for math.
This methodology has evolved over two decades, and we have received consistent positive feedback from graduates who have chosen a career in auditing. Admittedly, there were obstacles that needed to be refined in order to yield a more effective classroom model. Initially, we implemented the role playing method with the students relying solely on reading the flowcharts as we moved through the cycle. The end result created more confusion than learning. As a result of student feedback, we incorporated an 8 ½ by 11" paper with document names and numbers as previously described. In addition, we introduced hard hats for the Receiving Manager and Transporter, and a widget. These alterations gave a more physical, visual feel to the role playing and facilitated a more substantive discussion by better isolating the transaction cycle in time. However, while this improved the instructional presentation, a small number of students continued to lose focus. Our solution was to formally assign roles to individuals, writing their names on the board, and offering extra credit on the internal control exam if the student could identify the individual’s role.

**Conclusion**

This paper proposes a creative and sensory-based methodology for obtaining an understanding of systems and controls, and writing audit programs for tests of controls in the auditing course. The approach accomplishes the learning objectives of internal control within an environment that encourages learning and comprehension.

This approach to teaching internal controls evolved in our instruction over the last 20 years, and the feedback has been favorable. Our students’ performances on exams and quizzes attest to the effectiveness of this teaching methodology. Their ability to articulate internal control theory and practice is particularly evident in essay responses. Moreover, graduates consistently communicate that their understanding of internal control enabled them to excel as a first year staff accountant.

This approach creates a physical, interactive classroom environment, which can captivate even the least interested student. This method of delivering the topic initially alters the student’s expectation of how the topic will be presented, and immediately opens opportunities to reach each student, since their interest is focused on what is going to happen next. Moreover, the classroom adds visual application of the textbook readings, which can particularly difficult to understand in the internal control chapters.

A Statement of Basic Auditing Concepts (AICPA 1973) defined auditing as a systematic process, i.e., a methodical approach where each step must be performed in a pre-determined order. Teaching systems and controls with this method further aids the student in understanding the systematic nature of auditing. The opportunity to stop the transaction flow essentially locks the transaction in time, enabling the student to see how the steps already performed have influenced the current stage of the discussion, and consider how the current stage will influence the remainder of the transaction. Further, because it gives the student a sense of time, it provides a more comprehensive review of internal control.

Students have a great desire to apply their classroom knowledge to the “real world.” All too often the emphasis on audit theories blurs how auditors audit in practice. This approach is grounded in internal control theory, yet it has a particularly practical feel in the classroom. The realistic enactment of actual transactions motivates learning, because it appeals to the student’s craving to experience the audit process.

Finally, why should you implement this practice-based, interactive pedagogical approach? Simply stated, it is enjoyable for both the students and instructors. And, students who are captivated can experience meaningful, long-term retention of this critical area.

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2 The widget was a 3 x 9 aluminum foil covered cardboard box with two holes in which we placed two toy bolts. This design allows us to use the widget in the revenue, expenditure and payroll/production cycles, i.e., a complete unit for revenue, parts for expenditure and construction of the widget in payroll/production.
BIBLIOGRAPHY


EXHIBIT I
STAGES OF AN INTERNAL CONTROL REVIEW

<table>
<thead>
<tr>
<th>STAGES</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Obtain an Understanding</td>
<td>Prior Year Workpapers, Interviews, Flowcharts, Narratives Client Records</td>
</tr>
<tr>
<td>2. Assess Control Risk</td>
<td>Evaluation and documentation of the auditor’s understanding of internal controls based on information obtained in Stage 1</td>
</tr>
<tr>
<td>3. Evidence to Support the Control Risk Assessment</td>
<td>Tests of Controls - measuring the effectiveness of the client’s systems of controls for those controls that the auditor chooses to rely on.</td>
</tr>
<tr>
<td>4. Correlation of Control Risk with Detection Risk</td>
<td>Auditor makes a decision! Can I rely on this control to reduce my substantive testing?</td>
</tr>
</tbody>
</table>
EXHIBIT II
STAGE I

STRATEGY FOR UNDERSTANDING
ACCOUNTING SYSTEMS AND INTERNAL CONTROLS

For most students, accounting systems and their related internal controls can be the most perplexing and frustrating section of the auditing course. Ultimately, the student who undertakes a patient, methodical study of each cycle will gain a solid understanding of the key concepts. The following learning strategy will enable you to effectively focus your study efforts, and develop a workable knowledge of systems and controls.

1. Obtain an Understanding of the Flow of the Transaction:
   First, obtain a thorough understanding of each stage of the transaction, i.e., a transaction review or walk through. Initially this may not seem as important as the other steps in this strategy. However, in the greater scope of your study, it will establish an invaluable foundation from which you can build each cycle’s unique collection of controls. This understanding can be accomplished in the following manner:
   A. Index all of the key functions in the cycle. Clearly distinguish the role of each function, including when and why they appear in the cycle.
   B. Identify all of the cycle’s documents and records. As part of your review, note all of the characteristics of the documents and records, e.g., pre-numbered, authorized, past information (past documents and records) was used to create the document, and how was the document used to further the transaction (upcoming documents and records).
   C. Walk the cycle’s document and records through the key functions (combine A and B above). This will sometimes require you to track multi-copied documents through many functions.

2. Identify the Cycle’s Key Controls:
   Once you have gained an understanding of the flow of the transaction, identify the key controls for each cycle. These controls should fit logically into your framework of functions and documents/records. Each control has a particular purpose, so make sure that you can articulate why the control appears in the cycle, i.e., what does it accomplish.

3. Design Tests of Controls:
   After you have obtained a solid understanding of the cycle, and can confidently explain and fit the key controls into the cycle, the most difficult step becomes the easiest – designing tests of controls. Simply measure whether the control is working as expected.
FLOWCHART

SOURCE: Wiley CPA Exam Review: Auditing and Attestation

The Accounting Educators’ Journal, 2013
### EXHIBIT III
#### KEY FUNCTIONS AND DOCUMENTS

<table>
<thead>
<tr>
<th>Functions</th>
<th>Documents</th>
<th>Key Individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requisitioning Department</td>
<td>Purchase Requisition</td>
<td>Raw Material Stores Manager</td>
</tr>
<tr>
<td>Purchasing</td>
<td>Purchase Order</td>
<td>Purchasing Manager</td>
</tr>
<tr>
<td>Receiving</td>
<td>Receiving Report</td>
<td>Receiving Dock Manager</td>
</tr>
<tr>
<td>Accounts Payable</td>
<td>Vendor’s Invoice</td>
<td>Accounts Payable Clerk</td>
</tr>
<tr>
<td>General Ledger</td>
<td>Voucher</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Voucher Register</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Ledger</td>
<td></td>
</tr>
</tbody>
</table>
EXHIBIT IV
SAMPLE QUESTIONS FOR ROLE PLAYING STUDENTS

Stores Spotlight:
Stores Manager  How do you know when to order materials?
                  What document will you prepare?
                  What differences would you see if the requisition process
                  was automated?
                  To whom do you send the multi-copy purchase requisition? Why?
Purchasing Manager Why did you get a copy of the purchase requisition?
Accounts Payable  Why did you get a copy of the purchase requisition?

Purchasing Spotlight:
Purchasing Manager  What will you do when you receive the purchase requisition, e.g.,
                    bidding, evaluation of price, quality and delivery time?
                    What document will you prepare?
                    To whom do you send the multi-copy purchase order? Why?
Stores Manager:    Why did you get a copy of the purchase order?
Receiving Manager  Why did you get a copy of the purchase order?
Accounts Payable  Why did you get a copy of the purchase order?

Receiving Spotlight:
Receiving Manager  Why are there no quantities on your copy of the purchase order?
                    What document will you prepare?
                    Who signs the receiving report?
                    To whom do you send the multi-copy purchase order? Why?
Stores Manager     Why did you get a copy of the receiving report?
Purchasing Manager Why did you get a copy of the receiving report?
Accounts Payable   Why did you get a copy of the receiving report?

Accounts Payable Spotlight:
Accounts Payable  What document(s) are you waiting to receive before you record the
                  liability?
                  Once you have copies of the purchase requisition, purchase order,
                  receiving report and invoice, what will you do next?
                  What is a voucher?
EXHIBIT V
SAMPLE CYCLE DOCUMENTS

PURCHASE ORDER 1
Vendor Copy

PURCHASE ORDER 2
Requisition Copy

PURCHASE ORDER 1
Receiving Copy

RECEIVING REPORT 4
Purchasing Copy

RECEIVING REPORT 5
Accounts Payable Copy

1 The receiving department’s copy of the purchase order does not include quantities
EXHIBIT VI
KEY CONTROLS

Initiation & Recording of Expenditure – (Dr) Expense / (Cr) Liability

Inventory (Central) Stores
- Preparation and approval of pre-numbered Purchase Requisition.
- Establish open order file.

Purchasing
- Bidding (generally tested by internal auditors).
- Preparation and approval of pre-numbered purchase order, including a
  Receiving Department copy with no quantities.
- Approval of purchase order.
- Update open order file.

Receiving
- Inspection and approval of goods received (Quality Control).
  Preparation and approval of pre-numbered receiving report – approved
  and dated by both the Receiving and Transporter.
- Update open order file.

Accounts Payable (Voucher Payable)
- Match purchase requisition, purchase order, receiving report and vendors
  invoice.
- Review account distribution.
- Preparation and approval of pre-numbered voucher.
- Preparation of voucher register.
- Update open order file.

General Ledger
- Timely posting to accounts payable and other related general ledger
  control accounts.
EXHIBIT VII
STAGE II

STRATEGY FOR DESIGNING AUDIT PROGRAMS
FOR TESTS OF CONTROLS

Control procedures are components of the internal control system, created and maintained by the management of the client. Auditors are required by the SAS’s to study and gain an understanding of the client's internal control system. For controls that the auditor chooses to rely upon, the auditor must test those controls. The following framework simplifies the myriad of tests of controls that auditors address.

DIRECTION TESTS:
These tests can only be performed with two or more documents or records:
   1. Completeness (Source Document \(\rightarrow\) General Ledger)
      Trace \textit{forward} in the transaction.
   2. Existence or Existence (Source Document \(\leftarrow\) General Ledger)
      Vouch \textit{backward} in the transaction.

DOCUMENT TESTS:
These tests are usually performed on single document packages:
   1. Authorization - Signatures, Initials or Passwords.
   2. Timeliness or Proper Period - Dates.
   3. Valuation or Accuracy - Recalculations (using a calculator or adding machine).
   4. Classification - GAAP (That stuff from Intermediate Accounting).
   5. Accounting or Posting and Summarization - Journals and Ledgers
EXHIBIT VIII
AUDIT PROGRAM FOR TESTS OF CONTROL

Completeness
Select a random sample of X purchase requisitions originating from the requesting department.
  
  Authorization
  Review purchase requisitions, and note proper authorization.
  
  Completeness 
  Trace details, including quantities, per purchase requisitions to pre-numbered purchase orders.
  
  Authorization
  Review purchase orders, and note proper approval.
  
  Valuation
  Recalculate footings and extensions.
  
  Completeness
  Trace details, including quantities, per purchase orders to receiving reports.
  
  Authorization
  Review receiving reports and note proper approval by receiver and transporter.
  
  Proper Period
  Review dates for reasonableness.
  
  Completeness
  Compare details per purchase requisition, purchase orders and receiving reports to vendor’s invoice, and trace details to pre-numbered voucher.
  
  Valuation
  Recalculate footings and extensions.
  
  Classification
  Review account distribution for proper classification.
  
  Authorization
  Note proper authorizations on voucher.
  
  Completeness/Accounting
  Trace details per voucher package to voucher register.
  
  Valuation
  Foot voucher register.
  
  Classification
  Trace details per voucher register to related general ledger control accounts.

Existence
Select a random sample of X inventory purchase transactions in the general ledger.
  
  Classification
  Review journal entry for reasonableness.
  
  Existence
  Trace details per general ledger voucher registers.
  
  Valuation
  Foot voucher register.

Select a random sample of X vouchers in the voucher register.
  
  Existence/Accounting
  Trace details per voucher register to voucher package.
  
  Classification
  Review account distribution for proper classification.
  
  Valuation
  Recalculate footings and extensions.
  
  Authorization
  Note proper authorizations on voucher.
  
  Existence
  Trace details per voucher package to vendor’s invoice.
  
  Existence
  Trace details, including quantities, per voucher package to receiving reports.
  
  Authorization
  Review receiving reports and note proper authorization by receiver and transporter.
  
  Proper Period
  Review dates for reasonableness.
  
  Existence
  Trace details, including quantities, per voucher package to purchase orders.
  
  Authorization
  Review purchase orders, and note proper approval.
  
  Valuation
  Recalculate footings and extensions.
  
  Existence
  Trace details, including quantities, per voucher package to purchase requisition.
  
  Authorization
  Review purchase requisitions, and note proper approval.