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Analyzing Characteristics of ERP Adopters in the AIS Curriculum

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Abstract

Incorporating an ERP (enterprise resource planning) software or other accounting system software into an introductory AIS (accounting information systems) course can achieve multiple learning objectives, such as teaching business processes, enhancing critical thinking, and incorporating technology into the curriculum. Many software choices are available, and all of them permit instructors to meet key AIS learning objectives while simultaneously exposing students to current technology; however, the choices have varying levels of functionality. We identify key AIS learning objectives from prior research. In addition, we surveyed 89 accounting instructors to identify which systems are in use, how they are being used, why they were selected, and barriers to adoption. We encourage AIS instructors evaluating accounting systems software for their courses to consider this information when choosing a system.

Keywords
Accounting Information Systems, ERP, Enterprise Systems

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One of the key characteristics of AIS courses is the lack of a standardized curriculum (Borthick, 1996; Davis & Leitch, 1988). The diversity of AIS curricula has been addressed by numerous studies for more than three decades, including Bain et al. (2002), Garnsey et al. (2019), Groomer and Murthy (1996), Badua et al. (2011), Dillon & Kruck (2008), Winstead & Wenger (2015), and Tam (2013). Among these diverse studies, internal controls and transaction processing consistently rank among the most commonly taught and the most highly valued by employers (Garnsey et al., 2019; Bain et al., 2002). The literature consistently acknowledges the need to teach information technology competencies and to integrate current technology and critical thinking into the accounting curriculum; however, the proliferation of new technology-related topics can make choosing which topics to include in AIS courses difficult (Daigle et al., 2007; AASCB, 2020; Boulianne, 2016).

Badua et al. (2011) argue that this problem can be addressed by adding a second AIS course but doing so does not obviate the need to determine which topics should be included in the first—or for many institutions, the only—AIS course. We posit that including enterprise resource planning (ERP[1]) software in an AIS course is an effective way to incorporate current technology while covering more traditional AIS topics (e.g., internal controls and transaction processing), thus meeting multiple learning objectives. In addition, exposure to accounting systems software can help students be marketable, meet employer demands (Gittings et al., 2020; Gujarathi, 2005; Lehman et al., 2007), and, through experiential learning, improve critical thinking skills (Ahmed, 2019). We surveyed 89 accounting instructors to explore how widely they are using ERPs, which systems they most frequently teach, the objectives for inclusion, which factors influence their choice of systems used, and—perhaps more importantly—which factors contribute to decisions not to incorporate ERPs into the AIS curriculum. We believe this information can help instructors evaluating the inclusion of an ERP, changing from an existing system, or modifying aspects of their current usage.

Background and Literature Review

Multiple studies over several decades have surveyed instructors, employers, and/or accounting professionals to identify what *is* versus what *should be* taught in AIS courses (Garnsey et al., 2019; Winstead & Wenger, 2015; Badua et al., 2011, Dillon & Kruck, 2008; Bain et al., 2002).

Traditional Skill Development

Consistently, internal controls and transaction processing rank among the most highly valued and widely taught AIS topics. Garnsey et al. (2019) found that COSO, internal controls, and transaction processing are the only three topics ranked as "Of Greater Importance" by both educators and employers. Similarly, Bain et al. (2002) reviewed textbook topics and found that transaction processing, including the revenue and purchasing cycles, ranked just below internal controls in importance. Likewise, Murthy and Ragland (2009) found that understanding internal controls is critical since the advent of Sarbanes Oxley (SOX) because the verification of financial reports for SOX certification has made understanding internal controls critical.

Accounting systems software, including general ledger and ERP systems, are also highly valued topics by professionals and employers. Bain et al. (2002) found that nearly 50% of professionals recommend teaching general ledger software. Dillon and Kruck (2008) found that all three employer types surveyed (consulting, public accounting, and other) find it important to teach enterprise systems such as SAP. Garnsey et al. (2019) surveyed 59 educators and 49 employers and found that both groups consider experience with commercial accounting / ERP software to be important. Weisenfeld et al. (2020) surveyed 100 practicing accountants on their opinions concerning the importance of 62 specific IT-related skills and found that QuickBooks ranked highly with both small and medium-large firms, although the authors do not specify if they asked about other varieties of ERP software.

Other research also discusses the use of specific accounting systems software applications in the classroom. Gujarathi (2005) found that student understanding of the accounting cycle improved after using Great Plains Dynamics to complete a set of transactions, while Lehman et al. (2007) leveraged specific characteristics of Peachtree Complete Accounting in a teaching case on identifying internal control weaknesses. Hill (2007) notes that a variety of AIS learning objectives can be met using accounting systems software and recommends the use of free software tutorials to teach transaction processing.

Etnyre and Lehman (2015) discuss the use of both Sage 50 and SAP in their institution's AIS and ERP courses, respectively. They note that Sage 50 is fairly intuitive, and students can build a company "from the ground up" (p.

[1] Romney and Steinbart (2012, p. 672) define an ERP as "a system that integrates all aspects of an organization's activities into one accounting information system." While ERP systems may encompass many modules other than accounting, such as HR and manufacturing, for purposes of this paper we use "ERP" to refer to those modules that address general ledger accounting. Further, for brevity, going forward we use "ERP" to denote accounting software systems such as QuickBooks, as well as more robust packages such as SAP.

52). They point out that, using the software, AIS instructors can explain internal control mechanisms and how business processes must be integrated to provide reliable financial information. Hingorani et al. (2015) teach the SAP AIS Global Bikes case using QuickBooks rather than SAP, finding it permits students to focus more on content rather than on the complexity of the SAP software platform.

Expanded Skill Development

Critical thinking skills are essential for accounting professionals—both the AACSB International (2020) and the American Institute of Certified Public Accountants (AICPA) (2020) promote their inclusion in the curriculum—but they are difficult to incorporate into the required accounting curriculum (Butler et al., 2019; Sinnewe et al., 2023). Experiential learning is one way to develop critical thinking skills, and simulations, in particular, are effective tools for classroom-based experiential learning (Ahmed, 2019). These studies, which focus specifically on the AIS course, share a common underlying theme: the software is used to enhance other capabilities such as critical thinking and the ability to learn software efficiently, rather than emphasizing the software itself. As Neely et al. (2015, p. 614) note, what sets the AIS course apart is that students "are not being trained on the software but, instead, are being educated on what the software should do, which enables them to take control and better manage both the input and output of the system." Using ERP software to simulate business processes provides concrete experiences that reinforce the content that students learn through traditional classroom activities (Ahmed, 2019).

Research Questions

We noted earlier that incorporating ERPs into the AIS curriculum can achieve multiple learning objectives, including teaching internal controls, transaction processing, and critical thinking. We also noted that professionals and employers highly value including ERP and other accounting systems software in accounting curriculum, and many instructors use specific accounting systems software in their courses.

However, integrating ERP software into an AIS course can be a major undertaking. Blount et al. (2016) and Vician and Mortenson (2017) describe the adoption and implementation of SAP into their institution's AIS curriculum, including the significant effort required to become a member of the SAP University Alliance, coordinate with on-campus IT, and obtain instructor training. Other ERP systems, however, are available for educational use, and not all require the same level of commitment for adoption. Thus, we build on prior research through a survey of 89 accounting instructors to address these questions:

1. How frequently are ERP systems used in AIS courses?
2. Which ERP systems are most often used in AIS courses?
3. What factors influence instructor use of particular ERP systems?
4. How are ERP systems used in AIS courses?
5. What barriers hinder teaching ERP systems?

Method

Administration of the Survey

For the current study, we sent a 23-question survey to a total of 1,073 faculty members in two separate emails, the first going to the AIS Educators Association mailing list (569 recipients) and the second going to addresses compiled from the *2016–2017 Hasselback Faculty Directory* (504 recipients).[2] The Hasselback selection included only those faculty indicating an interest in systems and whose contact information was validated through a Google search. Reminder emails were sent 14 days after the original email solicitations. Of the 1,073 surveys, 364 were opened; of those opened, 119 responses (11.1%) were received. Of these, 89 responses (8.3%) were complete and available for inclusion in the study. The number of respondents, while small, is not inconsistent with prior research (e.g., Badua et al., 2011; Garnsey et al., 2019).

Research Instrument

The complete survey instrument and corresponding research questions are included as Appendix A. The first questions were related to the institution where the respondent taught. The remainder of the survey was designed to help answer the five research questions identified above. The number of questions was kept to a minimum to help encourage participation.

Specific survey questions were developed based on multiple factors, including the authors' experience using ERP systems in professional practice and in the classroom, and using input from the advisory boards at the author team's schools and from other practicing professionals. Prior literature (Bain et al., 2002; Dillon & Kruck, 2008; and Garnsey et al., 2019) shows that both professionals and employers find teaching ERP-type software to be important,

[2] The 2016–2017 Directory is the most recent version available that lists individual faculty member names.

and recent changes to the CPA exam, including the 2024 addition of an Information Systems and Controls Discipline, demonstrate an increasing emphasis on technology. Accordingly, we included questions designed to gauge the influence of external stakeholders on course content.

Textbook costs are an increasingly important consideration for the majority of students (Jenkins et al., 2020) and must be considered when faculty design or revise their courses. Similarly, although most software choices and some classroom materials are free for educational use, others are not.[3] Questions regarding the use of particular software suites and available teaching materials were based first on a review of software vendors' education initiatives. Oracle, for example, provides free teaching and learning resources to academic institutions and educators through Oracle Academy (available at https://academy.oracle.com), while the SAP University Alliances program provides extensive opportunities to faculty and students, including hosted access to the software (see https://www.sap.com/about/company/innovation/next-gen-innovation-platform/university-alliances.html). Likewise, the Sage Education Program for educators provides multiple choices of software and course materials for use in the classroom. QuickBooks is nearly ubiquitous in the small business accounting software segment (Ongchoco, 2023) and also provides software and course materials free to educators. We reviewed textbooks and other websites to identify other materials available for use for teaching these or other systems in the classroom. We summarize the advantages and disadvantages of the most frequently taught ERP systems identified in our study in Appendix C.

We also included questions to identify how faculty use ERP systems in AIS courses. In particular, we wanted to determine whether they use ERP systems to cover topics commonly taught in AIS courses as identified in prior research, which technical capabilities of the systems are included, and which accounting cycles are addressed.

Results

Survey Respondents:

Table 1 contains information about the survey respondents. All respondents teach at four-year schools, about 71% of which are public. About 62% of respondents say their institutions is focused primarily on teaching rather than research. Just over 85% offer a graduate degree in accounting, including seven institutions offering a master's degree in taxation, four that offer master's in data analytics and four that offer PhDs. Nearly 54% hold a separate AACSB accreditation for their accounting program. The largest number of responses (30.3%) were from institutions with 5,000–9,999 students, followed by those with 25,000–49,999 students (28.1%); the fewest responses came from very large (50,000+) and very small (less than 5,000) institutions, at 4.5% and 7.9%, respectively. The number of accounting graduates is more evenly distributed, with 14.6% of represented institutions graduating between 1 and 49 accounting majors and 21.3% graduating over 300 students annually.

[3] Access to the full suite of SAP offerings, for example, may require a signed contract with an SAP University Alliance service partner and a fee, depending on the technical landscape and services required.

Table 1
Respondent Attributes (N = 89)

Attribute	Value	#	%
Type:	Four-year public	63	70.8
	Four-year private	26	29.2
Primary focus:	Research institution	34	38.2
	Teaching institution	55	61.8
Number of enrolled students:	50,000 or greater	4	4.5
	25,000–49,999	25	28.1
	15,000–24,999	16	18.0
	10,000–4,999	10	11.2
	5,000–9,999	27	30.3
	Less than 5,000	7	7.9
Number of annual accounting graduates:	300+	19	21.3
	100–299	33	37.1
	50–99	24	27.0
	1–49	13	14.6
Offers graduate degrees:	Yes	76	85.4
	No	13	14.6
AACSB accreditation:	College	79	88.8
	Accounting	48	53.9

We ranked questions so we could calculate an average rank for each answer. The answer choice with the largest average ranking is the most preferred choice. Table 2 shows averaged ranked answers[4] and reveals that respondents identified Big 4 firms as the primary target employer for their students Big 4 firms were followed by national and local/regional public accounting firms and then by industry, small business, and government. Also, Table 2 shows that Audit and Tax are identified as the primary field of future employment for students.

Table 2
Average Ranked Answers by Target Employers and Fields

Target	Field	Total[a]	Rank
Primary target employers of accounting students	Big 4 public accounting	82	6.28
	National firm public accounting	74	5.73
	Local/regional public accounting	84	5.71
	Industry	72	4.93
	Government	50	3.18
	Small business	47	3.40
	Other	37	1.22
Primary target field of employment for accounting students	Audit	94	5.78
	Tax	85	4.93
	General ledger accounting	53	4.25
	IT/Systems-related	52	3.69
	Internal audit	44	2.95
	Other	33	2.21

[a] Total response count

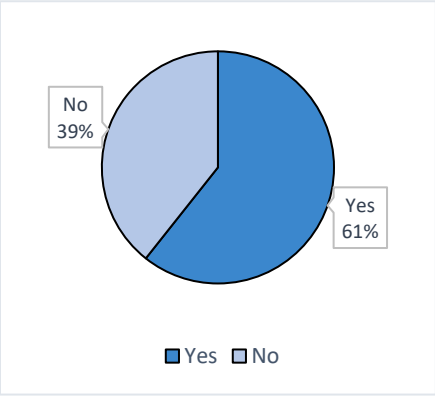
[4] The average rank is calculated as *x1w1 + x2w2 + x3w3 ... xnwn*, where: *w* = weight of ranked position; *x* = response count for answer choice.

ERP Usage

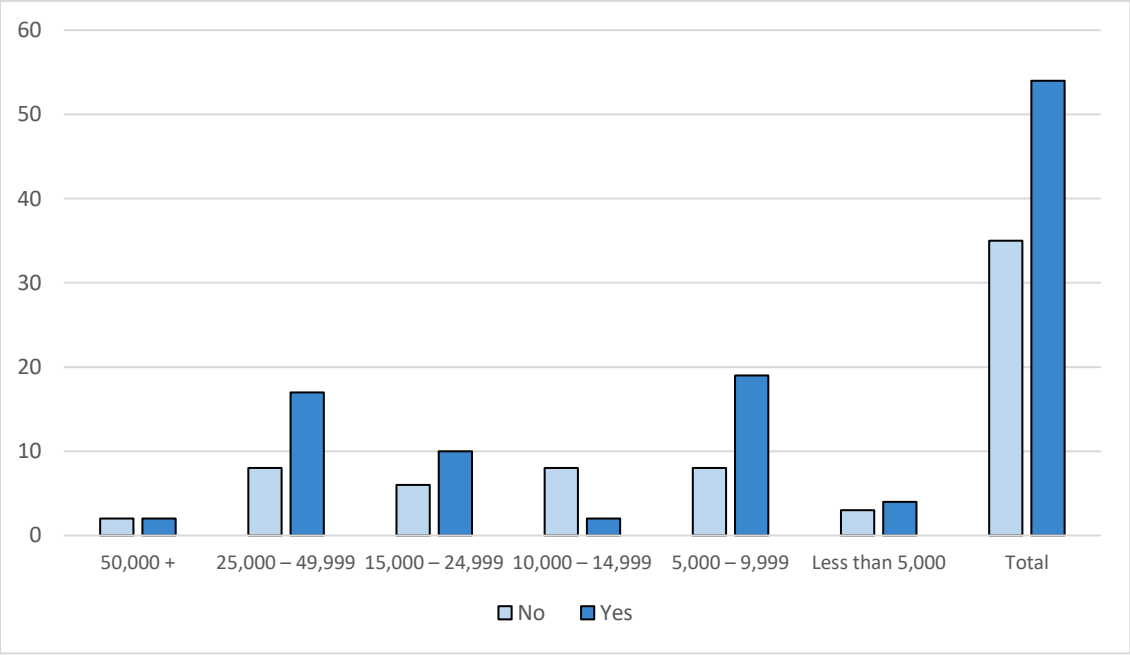
Figure 1 Panel A shows that 54 of 89 (61%) respondents employ an ERP in their AIS or equivalent course, and Panel B illustrates the variation of usage by the size of institution. Compared to most of the other size categories, usage in two categories of institution size (50,000+ and less-than-5,000) is more evenly split between those that use an ERP and those that do not; this result may be attributable to the low number of respondents (4 and 7, respectively) for schools in the largest and smallest size categories. Perhaps more interesting is that among institutions of medium size (10,000–14,999 students), eight of ten respondents indicate that they do NOT use an ERP. This result represents a statistically significant difference; again, this result may be related to the somewhat smaller number of respondents from schools in this size category.

Figure 1

Panel A: Overall Usage of ERP

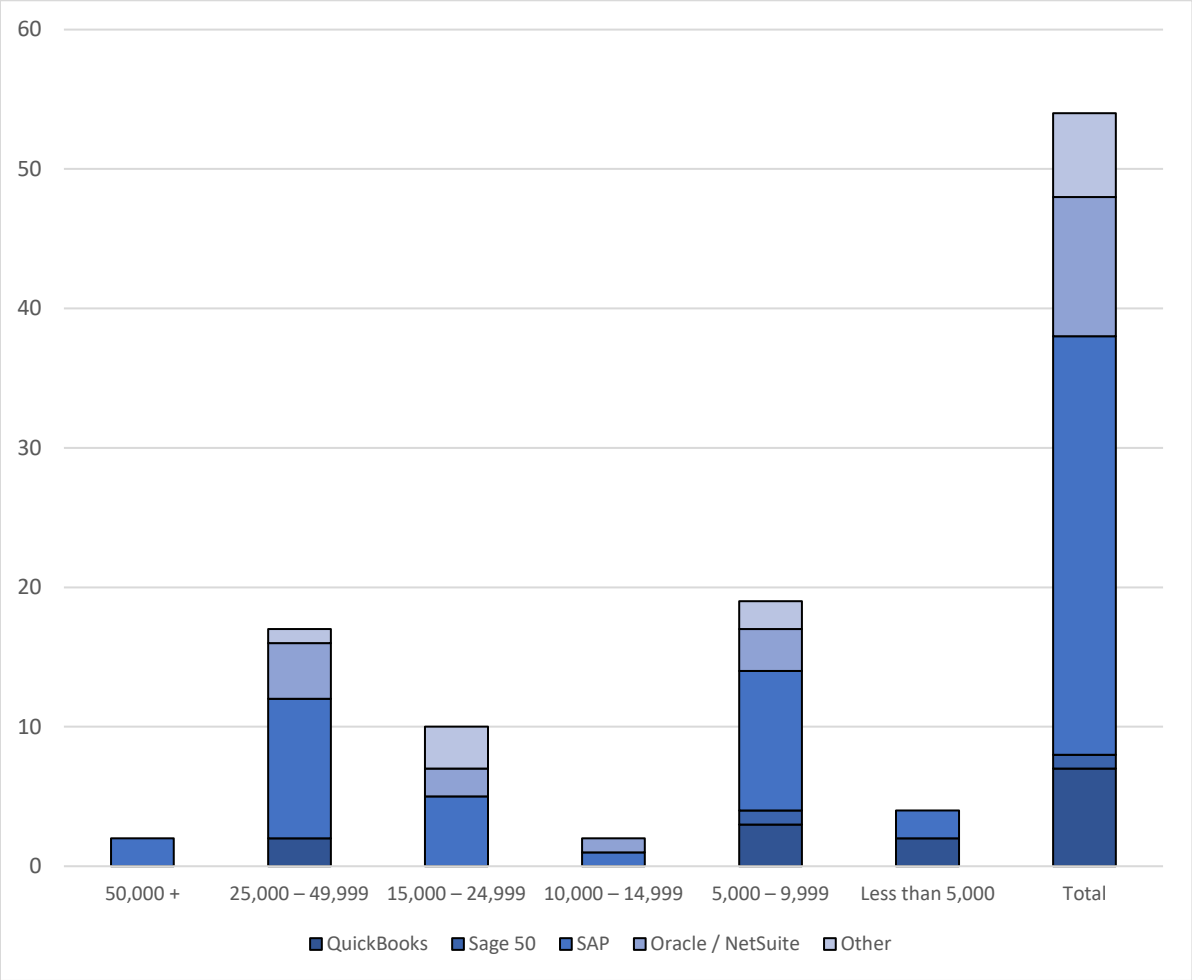


Panel B: By Institution Size



Of those incorporating an ERP system, SAP is by far the most popular, used by 30 of 54 (56%) respondents, followed by Oracle/NetSuite (ten users, or 19%) and QuickBooks (seven users, or 13%). Figure 2 shows the distribution of systems by institution size. SAP is used at institutions in every size category, an interesting fact given the quite substantial effort required to adopt SAP (see Vician & Mortenson, 2017).

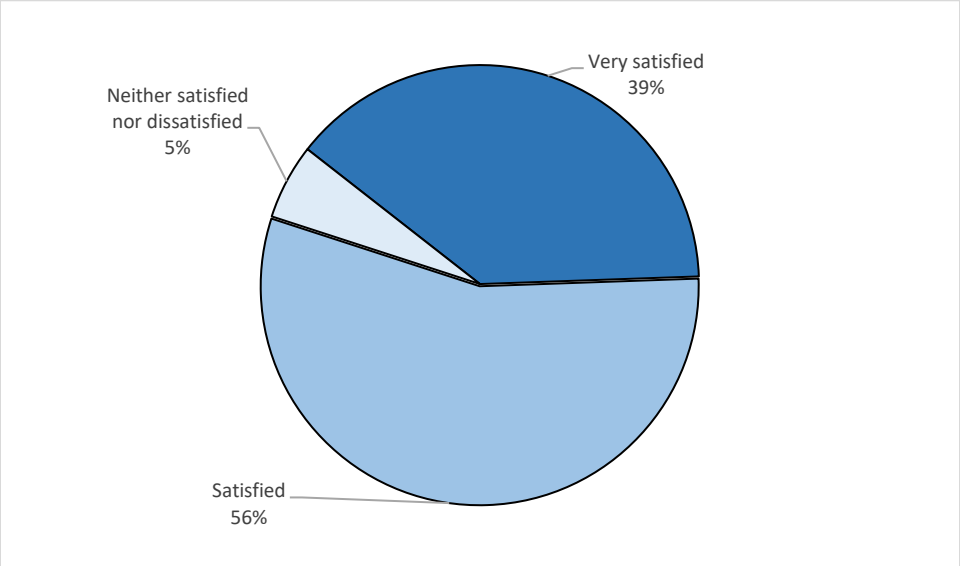
Figure 2
ERP System Choice by Institution Size



As shown in Figure 3 Panel A, nearly 95% (51) of respondents are satisfied or very satisfied with the system they use; no respondents indicated dissatisfaction at any level with their chosen system. Figure 3 Panel B shows that the level of satisfaction is consistent across system types, with values ranging from 2 to 2.4 on a scale of 1 (neither satisfied nor dissatisfied) to 3 (very satisfied).

Figure 3

Panel A: Satisfaction with Current ERP System



Panel B: Satisfaction with ERP System Used

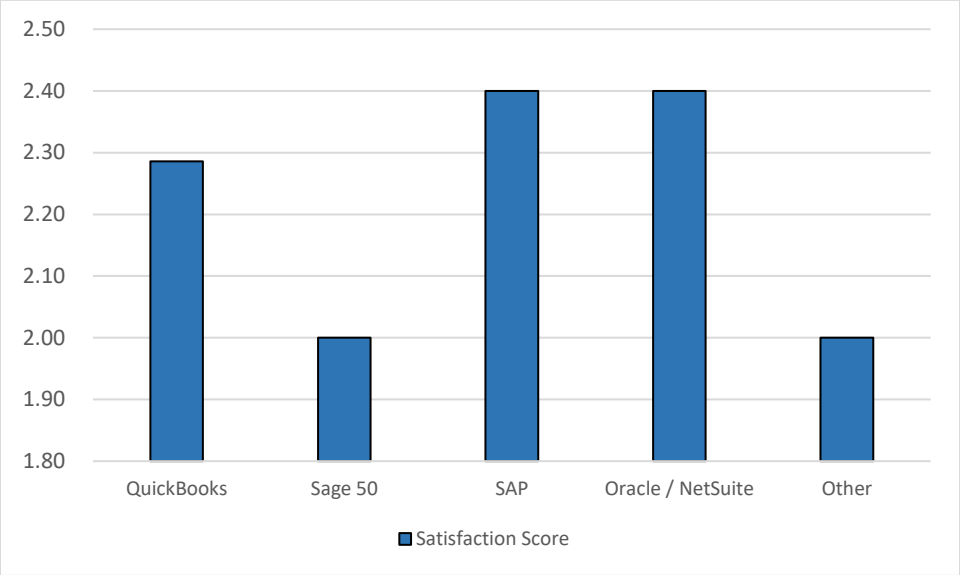
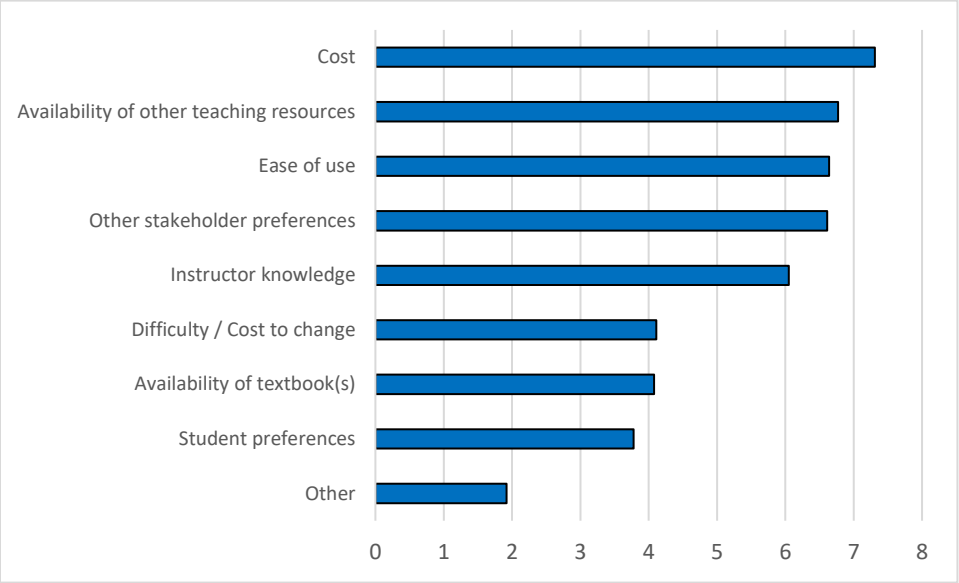


Figure 4 illustrates the factors influencing instructors' choices of ERP system to use in the classroom. The survey asked respondents to rank nine factors in order of importance. Cost and the availability of other teaching resources (such as case studies) achieved the first- and second-highest ranked choice score at 7.31 and 6.77, respectively. Ease of use and other stakeholder preferences scored nearly the same at 6.64 and 6.61, respectively, followed by instructor knowledge with a score of 6.05. The remaining factors (difficulty/cost to change, availability of textbook(s), student preferences, and "other") scored considerably lower than the other five factors, none scoring higher than 4.11.

Our initial survey did not ask respondents how they determined the desires of external stakeholders, so on the advice of a reviewer, we gathered anecdotal evidence on how accounting departments collect information from recruiters who will employ accounting students. We found several methods of data collection, based on the authors' many years of experience and a small sample of career services managers and department chairs. These methods include career services departments surveying recruiters, having very active advisory boards consisting of professionals who are often also alumni, and informal feedback from recently graduated students. A regularly recurring request is for more critical thinking activities and more hands-on technology in the classroom directly

related to course content. A frequent topic of advice for faculty is how to include more realistic activities using the most up-to-date software, such as Excel, Alteryx, Tableau, and ERP systems, while maintaining current curricular content.

Figure 4
Factors Contributing to the Choice of ERP System Used



Using ranked scoring, Figure 5 shows that, for respondents who include ERP systems in their courses, the three primary teaching objectives are teaching business processes (29%), preparing students for the job market (25%), and teaching internal controls (24%). When examined individually, over 87% of respondents rank teaching business processes as their first or second main teaching objective, followed by 58% who rank teaching internal controls as first or second, and 50% who rank preparing students for the job market as first or second.

Figure 5
Primary Objectives of ERP Usage

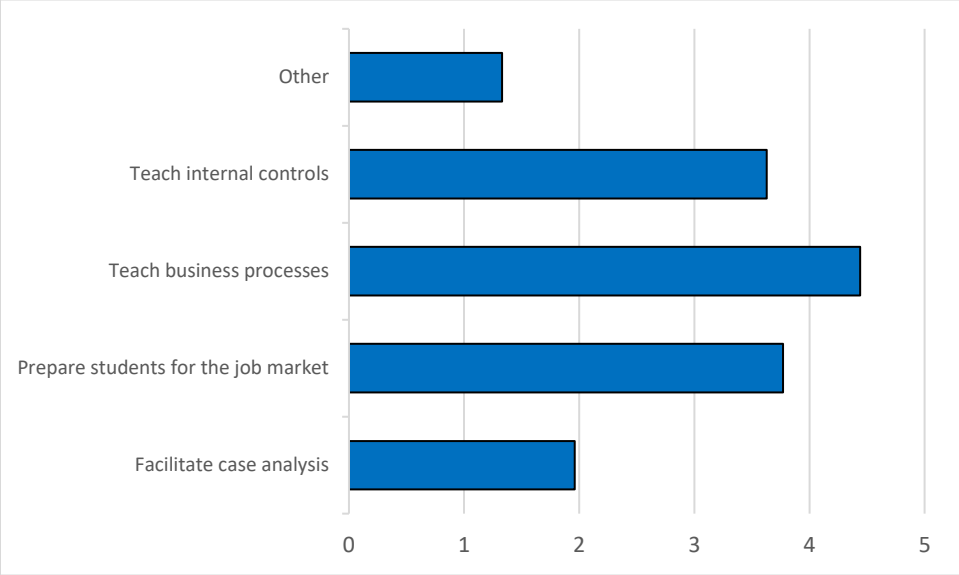
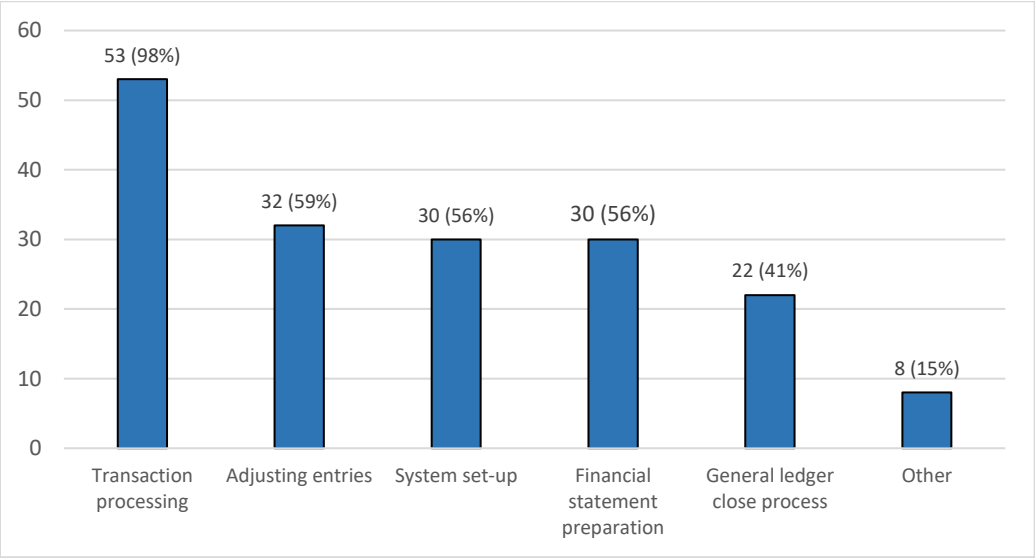


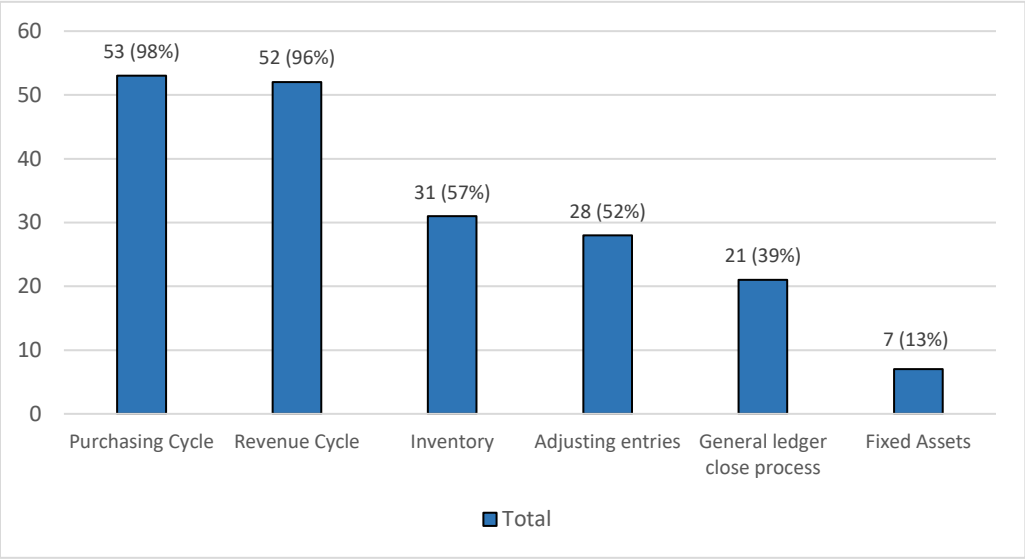
Figure 6 addresses the system capabilities and accounting cycles covered by those respondents who utilize ERP systems in their AIS courses. Nearly all (53 of 54, or 98%) include transaction processing as a main element in their coverage of ERPs. Other system capabilities, including processing adjusting entries, system set-up, and financial statement preparation were each included by approximately 56% of respondents, while only about 40% covered the general ledger close process. Prior research consistently identifies transaction processing and internal controls as among the most widely taught AIS topics (Bain et al., 2002; Garnsey et al., 2019), and the results in Figures 5 and 6 show similar results.

Figure 6
Technical System Capabilities Included



The two accounting cycles respondents most frequently teach using an ERP system, as shown in Figure 7, are the purchasing and revenue cycles, covered by 53 (98%) and 52 (96%) of 54 respondents, respectively. The next most frequently covered cycle is inventory, taught by 31 (57%). The fixed assets cycle is covered by just under 13%. Other topics cited by respondents included payroll, the production/manufacturing cycle, the conversion cycle, controlling, and costing.

Figure 7
Accounting Cycles Covered



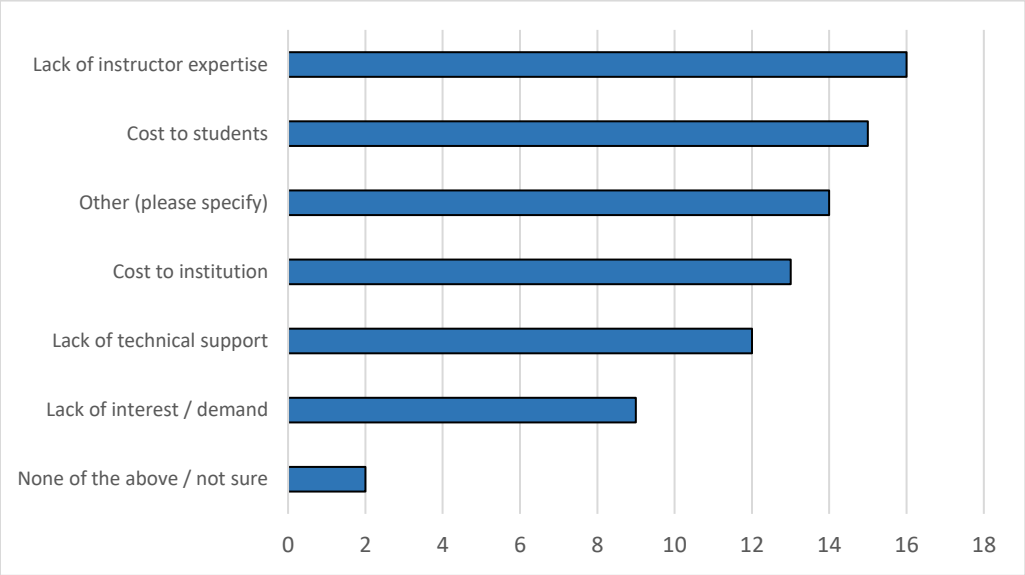
Barriers to ERP Usage

We move now to the roughly 40% (35 of 89) of respondents who do not incorporate an ERP system in their AIS or equivalent course. As shown in Figure 8, respondents overall rated a lack of instructor expertise as the most important factor, and 16 of 35 (45.7%) of respondents selected this factor as their first choice. Cost to students was likewise an important factor, rated second with an average ranked-choice score of 15, followed by a lack of technical support and cost to the institution with scores of 13 and 12, respectively. A lack of interest/demand, with a ranking of 9, was also cited by a sizeable percentage of respondents.

"Other" was the third most preferred choice by respondents, with a score of 14. An analysis of the specific reasons provided by these instructors showed that 6 of the 14 (43%) cited a lack of time in the course to include an ERP, while four note that ERP systems are covered in other courses. Two of these respondents noted that they use QuickBooks, indicating that they did not consider the use of QuickBooks to fall within the confines of the term "ERP." One respondent noted that using an ERP is outside the AIS course learning outcomes, and another indicates that students have not yet achieved a level of knowledge sufficient to use an ERP.

The large number citing a lack of instructor expertise and/or technical support is not surprising, as teaching a particular software requires specialized knowledge that many accounting instructors may not have, and obtaining necessary training requires significant instructor commitment. The many respondents who cite cost as a determinative factor, however, is somewhat surprising, given that several resources, including QuickBooks and Oracle/NetSuite, are available at little or no cost to the school or to the student. This may reflect the rapid pace at which additional materials are being made available at no charge; QuickBooks, in particular, has made additional instructor resources available since the survey data was collected.

Figure 8
Barriers to ERP Usage



Summary and Conclusions

AIS courses have traditionally covered a wide variety of topics based on the needs of the students, the department, the institution, and external stakeholders, with instructors facing challenges in determining which topics to include (Badua et al., 2011). We posit that incorporating an ERP system into the AIS curriculum can help address these challenges, as ERPs in the classroom can meet multiple learning objectives beyond providing students experience with commercial accounting software. These learning objectives include teaching internal controls, business processes / transaction processing, and critical thinking. Although many papers address the usage of specific ERP systems in the classroom (Dillon & Kruck, 2008; Etnyre & Lehman, 2015; Gujarathi, 2005; Hingorani et al., 2015; Lehmann et al., 2007), none to our knowledge address the broader question of ERP usage in general.

In this paper, our goal has been to shed light on the extent that ERP systems are used, specifically:

1. How frequently are ERP systems used in AIS courses?
2. What ERP systems are most used in AIS courses?
3. How are ERP systems used in AIS courses?
4. What factors influence instructor use of ERP systems?
5. What barriers hinder teaching ERP systems?

We find that ERP systems are widely used at institutions of all sizes. However, our overall survey results did not identify which institutional characteristics were associated with employing an ERP or which system they use, with one exception: schools with enrollments between 10,000 and 14,999 were significantly less likely to employ an ERP than were schools of any other size category. The choice of whether to include an ERP and/or which system to use appears to be largely determined by individual instructor assessments of the many factors to be considered, including cost, technological expertise, and institutional support.

Accordingly, we are unable to definitively state that "X" is the best ERP system to use in "Y" situation. What has emerged, however, is the possibility to provide guidance to instructors who are considering adding or changing an ERP system within their AIS course. Based on the barriers and influential factors identified in this research, supplemented with the experiences of the authors as they mentored other faculty, we provide a self-assessment tool for instructors in Appendix B. It considers the attributes that will affect their decision, including their own comfort level with teaching software, the availability of funds, and sources of support. Additionally, we have developed a table comparing the relative advantages and disadvantages of the four most frequently used ERP systems (as identified by this research) in Appendix C.

As shown by our survey results, not all AIS courses incorporate an ERP system, and those that do vary widely in the system used. Our goal in this paper has been to provide information on the most popular ERP systems to assist AIS faculty in determining which might best serve their many needs. These findings will be of use to AIS instructors considering adopting or changing an ERP or other accounting system.

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Appendix A

Complete Survey Instrument and Corresponding Research Questions

1. What is the size of your institution by total enrollment? (Demographics)
    a. 50,000+
    b. 25,000-49,999
    c. 15,000-24,999
    d. 10,000-14,999
    e. 5,000-9,999
    f. Less than 5,000
2. How many accounting majors graduate annually at your institution? (Demographics)
    a. 300+
    b. 100-299
    c. 50-99
    d. 1-49
3. What description best fits your institution? (Demographics)
    a. 4-year public
    b. 4-year private
    c. 2-year public
    d. 2-year private
4. What description best fits your institution? (Demographics)
    a. Research institution
    b. Teaching institution
5. Do you offer a graduate degree in accounting? (Demographics)
    a. Yes
    b. No
6. If so, what is the degree offered (e.g., M.S. in accounting, MPACC, etc.)? (Demographics)

    _____
7. Is your institution AACSB accredited? (Demographics)
    a. Yes
    b. No
8. Is your accounting program AACSB accredited? (Demographics)
    a. Yes
    b. No
9. Who are the primary target employers for your students? (Please rank the top 3.) (Demographics, RQ4)
    a. Big 4 public accounting
    b. National firm public accounting
    c. Local/reginal public accounting
    d. Industry
    e. Small business
    f. Government
    g. Other
10. What is the primary field of future employment for your students? (Please rank the top 3.) (Demographics, RQ4)
    a. Audit
    b. Tax
    c. General ledger accounting
    d. IT/Systems-related
    e. Internal Audit
    f. Other
11. Does your institution offer an AIS course or equivalent? (Demographics)
    a. Yes
    b. No
12. If so, what is the name of the course? (Demographics)

    _____
13. If so, please attach a recent syllabus. (RQ3, 4)

14. Does the course incorporate an ERP system in the AIS (or equivalent) course? (RQ1)
    a. Yes
    b. No
15. If your institution *does not* incorporate an ERP system into its AIS course offering, please identify the factors contributing to the decision. Please check all that apply. (RQ3, 5)
    a. Cost to students
    b. Cost to institution
    c. Lack of instructor expertise
    d. Lack of technical support
    e. Lack of interest/demand
    f. None of the above / not sure
    g. Other (Please specify) _____
16. If your institution *does* incorporate an ERP system into its AIS course offerings, what system do you use? (RQ2)
    a. QuickBooks
    b. Sage 50
    c. SAP
    d. Oracle/NetSuite
    e. Other
17. If so, what textbooks or other materials do you use? (RQ3)
    a. Armond Dalton
    b. Crosson & Lowenkron QuickBooks
    c. Donna Kay QuickBooks
    d. Janet Horne QuickBooks
    e. SAP Global Bikes
    f. SAP Classic Rockers
    g. Yacht Sage 50
    h. Other (Please specify) _____
18. What factors influence the choice of the ERP system in use? (Please rank 1–9) (RQ2, 3)
    a. Cost
    b. Availability of textbook(s)
    c. Availability of other teaching resources (e.g., case studies)
    d. Ease of use
    e. Student preference
    f. Other stakeholder preferences (e.g., employers, recruiters, etc.)
    g. Instructor knowledge of the system
    h. Difficulty/cost of changing to something difference
    i. Other
19. How satisfied are you with the ERP system taught at your institution? (RQ 3)
    a. Very satisfied
    b. Satisfied
    c. Neither satisfied nor dissatisfied
    d. Dissatisfied
    e. Very dissatisfied
20. What are the primary drivers of including an ERP system in your course? (Please rank 1–5.) (RQ3, 4)
    a. Satisfy employer or other external expectations
    b. Satisfy student or other internal stakeholder expectations
    c. Satisfy IT-related or other accreditation standards
    d. Satisfy departmental or other institutional expectations
    e. Other
21. What are the primary teaching objectives/focuses of your ERP usage? (Please rank 1–5.) (RQ3, 4)
    a. Facilitate case analysis
    b. Prepare students for the job market
    c. Teach business processes
    d. Teach internal controls
    e. Other

22. What general elements are included in your ERP module? (Please select all that apply.) (RQ4)
    a. Transaction processing
    b. System set-up
    c. Adjusting entries
    d. General ledger close process
    e. Financial statement preparation
    f. Other
23. Which accounting cycles are covered in your ERP module? (Please select all that apply.) (RQ4)
    a. Purchasing cycle
    b. Inventory
    c. Revenue Cycle
    d. Fixed Assets
    e. Adjusting entries
    f. General ledger close process
    g. Other

Appendix B

Self-Assessment Tool

Answers to the following questions will help guide your decision process about whether or not to include an ERP system in your AIS-related coursework. Because these systems and related curricular material vary in cost and complexity, this tool won't provide you with a definitive answer but can provide some points of discussion with your department, college, and/or IT staff.

I learn new software quite easily.

Strongly Agree----------Neutral----------Strongly Disagree

I enjoy learning new software.

Strongly Agree----------Neutral----------Strongly Disagree

I am confident explaining technical topics to my students.

Strongly Agree----------Neutral----------Strongly Disagree

I have time to devote to learning new software and curricular material.

Strongly Agree----------Neutral----------Strongly Disagree

I have time available in my course to incorporate ERP topics with my existing topics.

Strongly Agree----------Neutral----------Strongly Disagree

My university/college/department has funding available for new software and curricular material.

Strongly Agree----------Neutral----------Strongly Disagree

My university/college/department would support my efforts in non-financial ways (course release, teaching or lab assistant, etc.).

Strongly Agree----------Neutral----------Strongly Disagree

My university/college/department has IT staff available to support my efforts.

Strongly Agree----------Neutral----------Strongly Disagree

The students who take my course are price sensitive, so adding a new course fee would be a hindrance.

Strongly Agree----------Neutral----------Strongly Disagree

My industry partners and/or advisory board has been asking for ERP-related content.

Strongly Agree----------Neutral----------Strongly Disagree

Suggestions:

If you indicated that your primary concerns center around your knowledge of ERP systems or your confidence in learning new software, consider:

1. Using an ERP that is considered less complex, such as QuickBooks.
2. Attending in-person training at a conference or specialized workshop. For instance, SAP offers workshops tailored to specific course content such as accounting, and the AIS Educators Association Annual Conference frequently has hands-on training on one or more ERP systems presented by educators who use the software.

If you indicated that your primary concerns center around cost, consider:

1. Asking a firm that recruits your students to assist in paying for the software.
2. Finding a system that is provided free of charge.

If you indicated that your primary concerns center around time or resources to support your efforts, consider:

1. Discussing the matter with your IT representative. Often, centralized IT departments are unaware of specialized curricular software, and they might be open to supporting you once they are aware of your needs.
2. Discussing the matter with your college or department advisory board, if available. They may be able to exert their influence on your behalf.

Appendix C

ERP System Comparison

Software	Advantages	Disadvantages
QuickBooks	• Requires little prior instructor knowledge • QuickBooks Online (cloud version is available) • Widely used software • May enhance student prospects for employment at small-to-medium–sized businesses and firms • Free instructor materials are available on Intuit Educators Portal	• Some internal control features in QuickBooks are less robust than in other ERPs • Changes are without notice, which may invalidate instructor materials • QuickBooks Desktop Version has been discontinued
Sage 50	• Requires little prior instructor knowledge • May enhance student prospects for employment at small-to-medium–sized businesses	• Desktop Windows version only; Mac users must use campus IT lab or use virtualization software • Course materials must be purchased, either through Sage or another source
SAP	• May enhance student prospects for employment at larger firms more likely to value experience with a major ERP • No student costs • Desktop client available for both PC and Mac computers • Large body of existing curriculum • Extensive instructor training available	• Extensive instructor training required • Significant up-front and ongoing cost to the institution • Significant IT support required • Software is highly structured and student errors are difficult to correct
Oracle/NetSuite	• Requires little prior instructor knowledge or prior experience • Cloud-based • No student or institutional costs for software	• Oracle Academy website is complex • Existing accounting curriculum is relatively simplistic

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