

Case Study:

Innovative Instructional Methods for Technical Subject Matter With Non-Technical Pedagogy: A Statistical Analysis

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Abstract

Instruction of technical subject matter to a relatively non-technical audience and vice versa in higher education is a daunting task. In this paper, a junior 300-level Management Information Systems (MIS) course as a student requirement for graduation in the School of Business Administration is selected for in-depth analyses and discussions. In the more recent years, MIS, as an area of study amongst AACSB-accredited Business Schools, has constantly fell victim to cogency problem of its subject matter, often referred to as its 'Identity Crisis'. One is the management-focused Objectivists Information Systems Management (ISM) and the other information-technology-centered Constructivist's Computer Information Systems (CIS). Both ideologies are intriguing and useful and in fact necessary to deliver the contents which encompass a gamut of MIS to students of higher learning. The pedagogical problem of MIS while balancing the ISM and CIS is discussed with an empirical analysis.

Keywords: Pedagogy, Objectivism, Constructivism, MIS, ISM, CIS, Empirical Study, Statistical Analysis, Instructional Performance.

Introduction

Instruction of technical subject matter to a relatively non-technical audience and vice versa at the baccalaureate as well as post-baccalaureate levels in higher education is a daunting task. Moreover, the complexity associated with instructing such an academic class is multiplied by a number of factors comprised of: whether the course is a required or elective discipline for graduation, the diversity of student majors and/or minors, academic experience or maturity of the student body (i.e. junior, senior, or graduate), and the student preparation measured by a set of prerequisites in order to register for the particular course in question.

In this paper, a junior 300-level Management Information Systems (MIS: BM-311) course as a requirement for graduation in the School of Business Administration (SBA) is selected for in-depth analyses and discussions. At present, the SBA houses three departments, Management and Marketing, Economics and Finance, and Accounting. The SBA is fully accredited by the AACSB¹ and dictates the MIS course as a graduation requirement for every undergraduate student, irrespective of his/her majoring department.

Prerequisite for the MIS course is any one of the following:

BM-250: Management and Organizational Behavior with

- IT-100: Information Technology
- IT-102: Information Technology for Scientists
- CS-102: Scientific Computer Applications

Over 98% of the students enrolled in the MIS course meet their prerequisite by the first set of choice, BM-250 coupled with IT-100, in a typical academic semester. The MIS faculty reports to the Management and Marketing department, in which faculties of diverse specialties are employed, ranging from Operations Management and Decision Sciences to Hospitality Marketing.

A critical problem which abridges MIS is the integrity of its subject matter. That is, there seems to be vastly distinct interpretations and views, without question, surrounding the discipline MIS. One is the notion of Information Systems Management (ISM), in which the focus is on the extensions of general management skills such as strategy, based on a series of surveys conducted by one of the authors. The ISM regards Information Systems/Information Technology (IS/IT) but as an application which the general management should seek. On the other hand, there is an equally valid yet somewhat opposite interpretation of MIS which resonates among the research community. It is a specialist's view of Computer Information Systems (CIS), in which the emphasis is now shifted to the subject of IS/IT per se and business entities are sought as its end users.

Hence, depending on which view the SBA adopts, the set of prerequisites for MIS as a course of instruction may drastically be different. Across Business Schools, in general, an individual Information Systems or Information Systems and Decision Sciences (IS & DS) department was observed among the CIS proponents, while a generalist's view of ISM was discovered in a typical Management department. Both interpretations, however, are useful in carrying out the MIS instruction at both the undergraduate and graduate levels. The dilemma is its pedagogical methods. General consensus is that the Objectivist approach^{5, 7, 23, 25, 34, 41} fits the ISM where as the Constructivist pedagogy^{4, 6, 10, 14, 16, 18, 19, 20, 22, 23, 28, 34, 35, 37, 38, 39, 43} is appropriate for the CIS.

Every baccalaureate, as well as post-baccalaureate course in higher education, by and large, is inherently different in nature. In particular, these courses may be classified into four categories as depicted in figure 1.

Subject Matter Pedagogy	Technical	Non-Technical
Technical	Type C	Type B
Non-Technical	Type D	Type A

Figure 1: Types of Courses: Subject Matter vs Pedagogy

Among others, the general consensus among educators is that Type B and Type D courses are one of the most difficult to deliver to the audiences or students of higher learning. By way of an example, it is expected to be relatively difficult to deliver high-order differentials of Calculus (II) to students majoring in English with say, strictly technical pedagogy. On the other hand, a severely heavy burden of reforming its pedagogy is placed on the instructor, should the technical course be successfully instructed with non-technical pedagogy. In essence, innovative, yet intelligent methods, mechanisms, or at times, experiments are necessary for courses of Type B as well as Type D. Observations of student backgrounds and qualifications indicate that BM-311: MIS falls into Type D of Figure 1.

The objective of this paper, therefore, is to seek such methods of pedagogy, using an integrated empirical study. An optimal balance of its subject matter and pedagogy for MIS is sought by employing a semester-long online student surveys. In conjunction with figure 1 aforementioned, figure

2 follows to illustrate another dimension of complexity associated with instructing courses at institutions of higher learning.

As indicated in figure 2, MIS as a required course for the SBA undergraduates, is deemed to be positioned at around the center of this 2-D Cartesian coordinate. An example of a Type III course, displayed as point X, may be the Doctoral Dissertation Research, whereas a general 101 education may be the candidate for point Y of Type I. Another factor which further complicates the equation is the mixture of students' backgrounds and more precisely, technical qualifications. For example, student response for teaching effectiveness at the outset of the semester, even prior to major instructional requirements are met, could well be expected to be bi-modal if not tri-modal for MIS, due to be fact that it is a requirement for all three departments of SBA, encompassing the Management, Finance and Accounting.

Review of Relevant Literature

Theoretical insights for the process of learning and its variant pedagogies were provided by Leidner et al²³. Their findings were later summarized, applied and/or extended by a number of practitioners including Leino²⁴, Nilsen et al³⁴, Tétard et al³⁸ and Yarusso⁴³ among others. In particular, Nilsen et al³⁴ sought to apply these theoretical foundations specifically to those courses with emphasis on Information Technology (IT). That is, mapping the Objectivism, Constructivism and Collaborativism to various course objectives were the experiments. Intuitive as they are presented, however, these papers have the following common shortcomings:

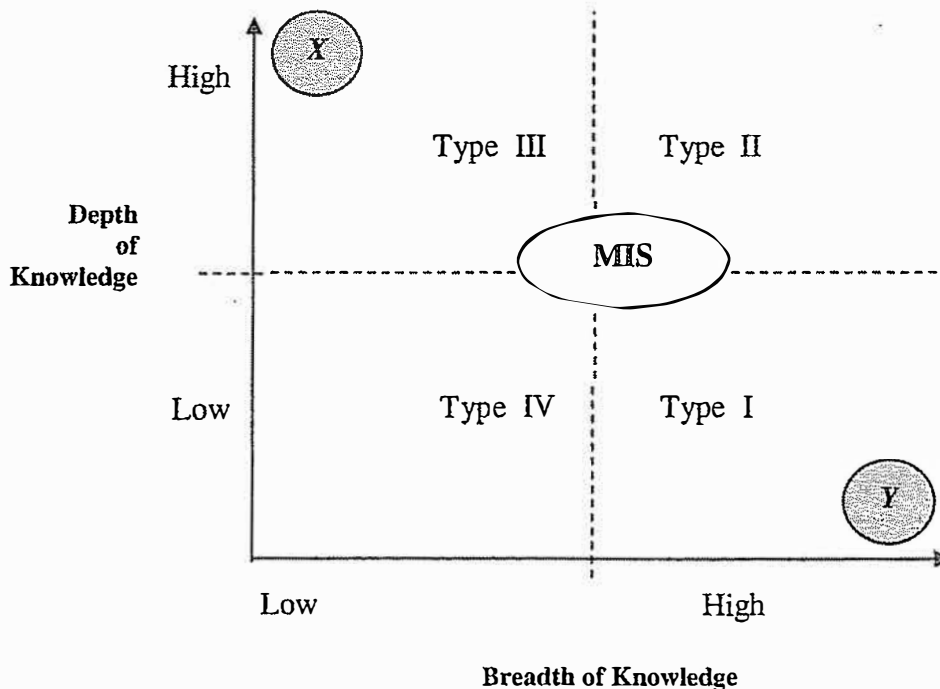


Figure 2: Types of Courses: Depth vs Breadth of Knowledge

- Design of teaching experiments and pedagogical suggestions, by and large, aim to increase instructional effectiveness from the instructors' point of view, with less emphasis on the students' needs and interest.
- Qualifications of students involved in the experiments are deemed to be highly homogenous.
- Course(s) of instruction selected for the research was generally well founded.

Leong²⁵ stressed the importance of enhancing the structure of the course to reflect students' interest, although no significant mapping to the theories was provided. In addition, Liao et al²⁶ discussed the topic of outcomes assessment. Correlations study was conducted relative to the increase or decrease of student motivation. However, they also failed to associate their findings to the learning theories. A drastically different conduit for learning to gauge the outcomes based on student-centered instructional methods are observed in Alavi et al^{2,3}, Brown et al⁹, Chen et al¹¹, Huang et al¹⁹, Karagiozov²⁰, Kim et al²¹, Law²², Lin et al²⁷, McClanahan et al²⁸, McCray²⁹, Negash et al³³, Norman et al³⁵, Piccoli et al³⁶, Saulnier et al³⁷, Webb et al⁴⁰ and Wei et al⁴¹. Among others, Huang et al¹⁹ proposed employment of the Web 2.0 paradigm, which may expedite the widespread adoption of virtual, real-time, and dynamically changing contents of the course in place of a traditional textbook in the classroom. An interest group comprising Alavi et al³, Brown et al⁹, Chen et al¹¹, Lin et al³⁶, McCray²⁹ and Webb et al⁴⁰ advocates asynchronous learning, while others led by Negash et al²⁷ expressed considerable interest in the synchronous. These papers with focus on improved learner-centered conduit are indeed invaluable, in part, to accommodate the first shortcoming outlined above of previous publications. However, bridging the gap between theory and practice was their common weakness.

Papers which carry empirical analyses based on theoretical foundation generally took student samples from a homogeneous group of population. For example, students in both Nilsen et al³⁴ and Tétard et al³⁸ were confined to Information Systems (IS) majors. Indeed, heterogeneous student population for an IS course was discussed in such papers as those by Bakke et al⁶ and Hardaway et al¹⁸. However, both the degree and level of heterogeneity are questionable in that the students represent samples from departments of IS-related colleges. The MIS course (BM-311) selected for the empirical study in this paper is engaged with relatively high heterogeneity of student qualifications. This is expected to provide an interesting statistical experiment in terms of its scope and scale of design as well as its nature of the sample. Over 98% of the students who register for this MIS course as their requirement for graduation is not IT inclined, majoring Management, Accounting, or Economics and Finance. Hence, the contributions of this paper which bring uniqueness and originality are two folds: a statistical pedagogical exercise with heterogeneous sample and the mixture of course contents, or alternatively dual objectives.

An additional dimension of instructional challenge associated with 'multiple contents' was not examined as a pedagogical imperative. Specifically, the introductory IS course in Bakke et al⁶ clearly demonstrate that it is ISM-oriented. On the other hand, studies such as Nilsen et al³⁴ are indicative of highly subject-focused CIS courses. Exposure to both ISM and CIS knowledge are critical in order for students to garner the fundamentals required for managing IS/IT for a diverse array of organizations, which encapsulates the gamut of MIS.

Thus far, the three common shortcomings amidst reported studies with pedagogical directives were reviewed. Undoubtedly, any one or a combination of the three may influence the metrics of an instructional performance survey such as the SIR (II) as a valid statistical factor, thereby causing inaccuracies¹⁵. As a consequence, rubrics of data collection for these student-driven surveys or questionnaires must be adjusted to compensate for these inclusive yet subtle factors.

Identity Crisis of MIS

In recent years, Management Information Systems (MIS), as an area of study in the School of Business Administration across the U.S., even based on the AACSB¹ standards, has constantly fell victim to what is often referred to as its 'Identity Crisis'. Along with the study of Management of Technology (MOT), this in most part is closely associated with the fact that these areas are inarguably interdisciplinary. Figure 3 represents possible areas of MIS and MOT among others.

Domiance of engineering primarily comprised of structured, quantitative technology since post-World War II, rapidly declined with the emergence of Information Technology (IT) in the 1990s, driven by the market. IT, by far, is one of most fluid (i.e. qualitative and unstructured) technologies introduced to the management and requires a radically different approach to plan, design, administers and maintain compared to engineering. As a consequence, once believed to be relatively unrelated, the MIS and MOT have become academic and professional disciplines with close ties in the 21st century. In essence, the emphasis on engineering technology has shifted to IT for MOT in general. In addition, disciplines encompassing Decision Sciences (DS) such as Management Science (MS), Operations Management (OM), Operations Research (OR), and Productions Management (PM), which were primary drivers for successful introduction to MOT are deemed insufficient to resolve problems related to fluid technology.

As depicted in figure 3, MIS/MOT indeed requires one to understand a wide spectrum of interconnected and abridged, yet seemingly distant or at times, unrelated areas. Critical common mistakes some of the business schools have made for over three decades are:

- 1) Faculty of MIS/MOT has had inadequate preparation in terms of understanding a gamut of the area, MIS/MOT.

Instead, a number of them carried specialty in but a single subset (among those illustrated in figure 3) required to complete the understanding of MIS/MOT. In particular, gaining an in-depth knowledge of 'Technology' and/or 'Engineering' requires one to expend a considerable amount of time and efforts, which is a desirable prerequisite ironically. In essence, there is a risk that an unqualified faculty (of MIS/MOT) may produce students of higher learning who may, with brute force, manage technology, without understanding its significant differences from classical disciplines within business schools such as Finance, Accounting, Operations, Human Resources etc. In addition, in most part, this explains the fiasco of the U.S. automobile companies.

2) There was a lack of standard curricula for MIS/MOT at the undergraduate and MBA, as well as at the graduate levels. Even among the existing, their structure and/or coherency are dubious. By way of an example, only a handful of AACSB-accredited Business Schools offer their students with a structured exposure to the area, say with MIS-101, followed by MIS-102, MIS-210, MIS-211, and so forth. To the authors' surprise, some schools were offering MIS/MOT with virtually no a priori exposure to (viz. a set of prerequisites required for) technology and/or engineering at all.

Throughout this paper, two disparate yet equally valid reflections of MIS as a discipline of instruction have been stressed. One was the notion of Information Systems Management (ISM), which adopts the generalist's view of management. The other argues the integrity of ISM as a prerogative of MIS, and adheres to the specialist's view. This interpretation is referenced as the Computer Information

Systems (CIS). Both ideologies are intriguing and in fact necessary to deliver the contents of MIS to students of higher learning, in conformity with the requisite knowledge as outlined in figure 3. The problem, however, is the design of its pedagogical methods.

In the theories of learning, the Objectivists approach to pedagogy is the one which the instructor becomes the director, creator, and the archive of knowledge, delivering as well as sharing his/her subject matter expertise or domain knowledge to and with the students. The premise of the ISM is that the students are versed at relevant management skills such as strategy and operations management as Business School majors and thus the Objectivists pedagogy is appropriate to meet the learning goals of MIS. Hence, the students' acceptance of Information Systems/Information Technology (IS/IT) as an alternative entrepreneurial building block is expected to be low.

The Constructivist's pedagogical imperative seeks to equip the student with creativity, self-construction and at times, self-learning, in which the instructor becomes a moderator of knowledge. The CIS advocates stress the importance of nurturing the student by IS/IT training ground up. Consequently, the CIS version of MIS fits the scope of the Constructivist's pedagogy. The notions of Objectivists and Constructivist's pedagogies may be mapped onto the conceptual classification of courses in figure 2. Based on their depth versus breadth of knowledge required in learning, courses of type I may require the Objectivists pedagogy, whereas those courses of type III fit the Constructivist's.

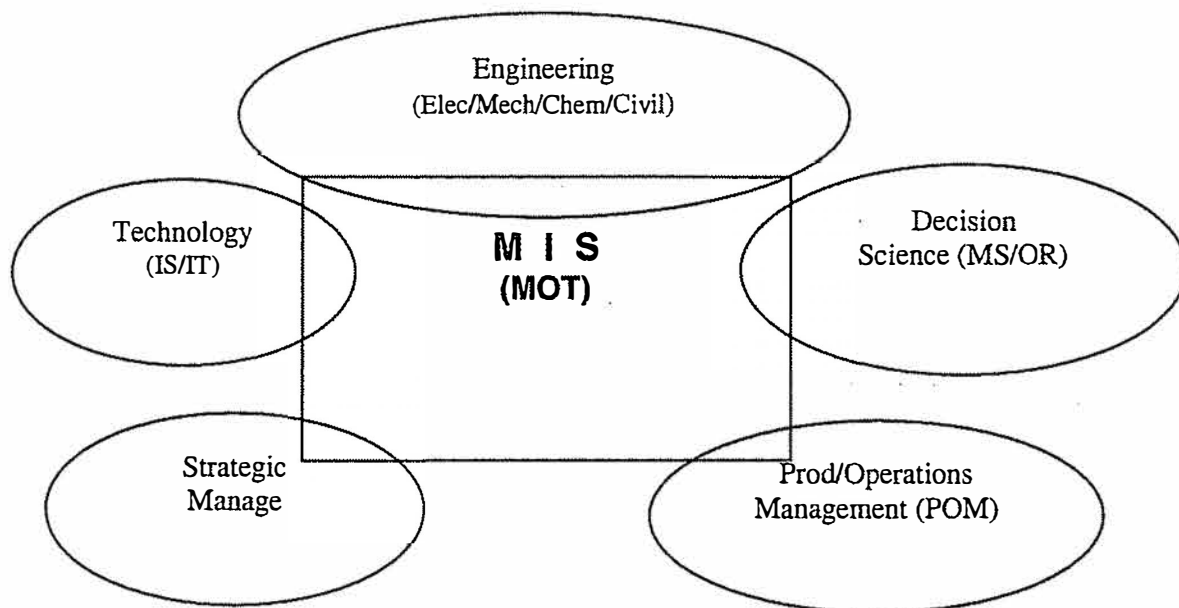


Figure 3: Interdisciplinary MIS and MOT

One of the instructional objectives of BM-311: MIS is to balance the ISM and CIS connotations throughout the semester by introducing the ISM in the first half of the semester to encourage student participation and to foster students from three departments with a common ground of MIS knowledge. Student presentations of various CIS technologies then follow in the second half of the semester, ranging from database and wireless networks to security management and Radio Frequency Identification (RFID). Current electronic platform for asynchronous learning is entitled the 'e-Campus', which is outsourced to an Operations Service Provider (OSP), well received in the market as the Desire2Learn, Inc.¹². The Blackboard, Inc. retains the highest market share at present.

It is important to realize that there may be a number of courses which are confronted with similar problems of MIS discussed hitherto. They may undergo a complex chain of difficulties surrounding them, which consist of diverse student backgrounds and identity crises, among others. Therefore, student evaluations of instructional performance should, at the least, contain tests questionnaires associated with these intricate dilemmas placed on instructors. For example, in SIR (II)¹⁵, there must be a reservation for an additional question, say as the 46th, specifically requesting the students to identify the 'types' (i.e. A or H) of their registered classes:

- Type A = Required course within the major
- Type B = Required course outside the major
- Type C = Required course within the minor
- Type D = Required course outside the minor
- Type E = Elective course within the major
- Type F = Elective course outside the major
- Type G = Elective course within the minor
- Type H = Elective course outside the minor

Then, to be statistically sound, the ETS should provide the instructors with the true statistical mean for peer institutions such as 4-year colleges across the nation based on each type or category of the course. This certainly will provide a legitimate cardinal scale (viz. equal ground) for every instructor before ordinal ranking is pursued by the administrators, if necessary.

Statistical Analysis of Student Surveys

Pedagogical effectiveness of instructing BM-311: MIS for balancing the Objectivists ISM with the Constructivist's CIS is analyzed. To complete the data collection process for this empirical study, a semester-long on-line survey on e-Campus was required of all students who registered for the course in the Fall 2008 semester. Data validation at the outset of the experiment was assured by providing a cardinal scale for the ISM and CIS. Effectiveness of virtually every course content was measured against the two paradigms, ISM and CIS, from digital slides to the resources pertaining to Web 2.0. To this end, statistically sound comparative analyses are expected to be achieved.

Objectivist Hypotheses: Hypotheses made to test the effectiveness of the Objectivists pedagogy are introduced. The object is to seek the balance of the ISM and CIS in parallel to a search for possible augmentation to the course material.

Digital Slides

- H-1: Student knowledge of managing IS/IT (i.e. ISM) increased with the publisher-provided digital slides in Microsoft PowerPoint.
- H-2: Student knowledge of IT as a technical subject matter (i.e. CIS) increased with publisher-provided digital slides in Microsoft PowerPoint.
- H-3: Student knowledge of managing IS/IT (i.e. ISM) increased with the instructor-provided digital slides in both Microsoft PowerPoint and Adobe PDF.
- H-4: Student knowledge of IT as a technical subject matter (i.e. CIS) increased with the instructor-provided digital slides in both Microsoft PowerPoint and Adobe PDF.

Instructor-provided Business Examples

- H-5: Student knowledge of managing IS/IT (i.e. ISM) increased with the instructor-provided business examples.
- H-6: Student knowledge of IT as a technical subject matter (i.e. CIS) increased with the instructor-provided business examples.

Instructor Demonstration of IT

- H-7: Student knowledge of CIS increased with IT demonstrations by the instructor, specifically on Databases and Networks.

Online Exams

- H-8: Student knowledge of ISM increased with multiple trials on each on-line exam.
- H-9: Student knowledge of CIS increased with multiple trials on each on-line exam.

Constructivist Hypotheses: Hypotheses are made in this section to test the effectiveness of the Constructivist's pedagogy for MIS. The balance of the ISM and CIS is sought, in parallel to a search for possible augmentation to the course material.

Team-based Case Presentation

- H-10: Group discussion of multiple case studies allocated and their presentation as a team inspired students to relate their knowledge and intuition of ISM gained in the course to the cases.
- H-11: Group discussion of multiple case studies allocated

and their presentation as a team inspired students to relate their knowledge and intuition of CIS gained in the course to the cases.

- H-12: Possible ISM applications learned through team work and brain storming will motivate students to seek applications to their own disciplines, majors or departments.
- H-13: Possible CIS applications learned through team work and brain storming will motivate students to seek applications to their own disciplines, majors or departments.
- H-14: Possible ISM applications learned through team work and brain storming will motivate students to seek applications to their own jobs and careers at present and in the future.
- H-15: Possible CIS applications learned through team work and brain storming will motivate students to seek applications to their own jobs and careers at present and in the future.

Web Source

- H-16: Web sources such as youtube.com inspired students to relate their knowledge and intuition of ISM gained in the course to the knowledge of their own disciplines, majors or departments.
- H-17: Web sources such as youtube.com inspired students to relate their knowledge and intuition of CIS gained in the course to the knowledge of their own disciplines, majors or departments.
- H-18: Web sources such as youtube.com inspired students to relate their knowledge and intuition of ISM gained in the course to seek applications to their own careers.
- H-19: Web sources such as youtube.com inspired students to relate their knowledge and intuition of CIS gained in the course to seek applications to their own careers.
- H-20: Experiential learning could expedite the learning process of ISM by incorporating various Web 2.0 resources,
- H-21: Experiential learning could expedite the learning process of CIS by incorporating various Web 2.0 resources.

Data Verification and Analysis

The alternative hypotheses (H_a) outlined are tested against the two-tailed Student t-distribution tableau values³², as displayed in figure 4. A total of twenty-seven (27) students of BM-311: MIS voluntarily responded to the e-survey.

Enrollment for the Fall 2008 semester was 34. Because the accuracy of data is of essence in this statistical experiment, students were given ample time window to complete the survey at their convenience and to complete it as an extra-credit assignment for the semester as opposed to a course requirement.

The instructor-provided digital slides have proved to be of highly effective Objectivists pedagogical assistance to students for learning the prerequisites of and introduction to CIS. This is expected to increase the student's awareness for and interest in the subject matter of CIS to be instructed during the second half of the semester with Constructivist's pedagogy. In addition, demonstrations of specific Information Technology (IT) by the instructor is considered by the students as significantly effective pedagogical method. Indeed, multiple trials permitted for the on-line exam are an effective pedagogical instrument for inspired learning. It is expected to provide the students with intuitive building blocks such as self construction and to prepare them for the Constructivist's pedagogy to be introduced later in the semester. It is clear that the instructor must formulate a set of innovative pedagogical directives for student requirements associated with collaboration, as indicated by the t-values. Toward this end, Web 2.0 may be an alternative.

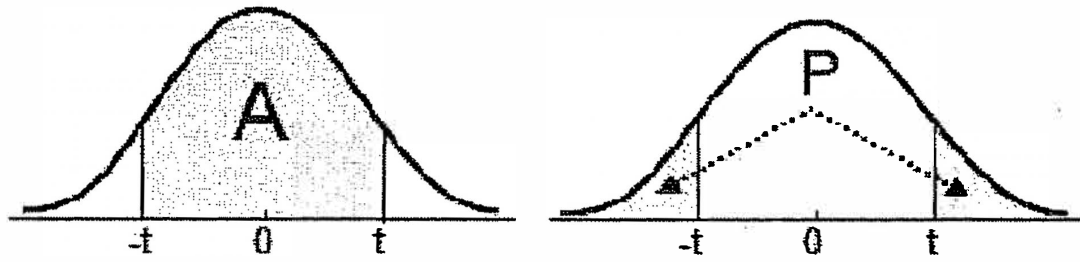
Conclusion

Instruction of technical subject matter to a relatively non-technical audience and vice versa in higher education is a daunting task. A 300-level Management Information Systems (MIS) course was selected for an empirical analysis in this paper. The object was to introduce to the students the two contrasting interpretations of MIS, the Information Systems Management (ISM) and Computer Information Systems (CIS), while balancing the Objectivists and Constructivist's pedagogies. Results of the hypotheses testing indicate that some of the instructor's pedagogical imperatives introduced in the MIS class are indeed highly effective. On the other hand, there were clear indications that a number of pedagogical instruments directed to collaborative learning be modified and/or enhanced. Future research as extensions to this paper should be directed to center upon many other 'technical' courses, qualitative as well as quantitative. In addition, instruction of non-technical subject matter to a relatively technical audience, similar to the research initiated by Willow⁴² may be an interesting analysis exercise for enhancing the pedagogy of a spectrum of courses in higher education.

Acknowledgement

This paper was funded by the 2008 Business Council Research Grant from the School of Business Administration, Monmouth University, West Long Branch, NJ 07764-1898, USA. One of their colleagues, Dr. Robert Scott Jr. was extremely helpful for his advice during the verification of statistical design of experiments and outcomes assessment. This paper is dedicated to Ocean D. Willow.

Values of the t- distribution (two- tailed)



DF	A	0.80	0.90	0.95	0.98	0.99	0.995	0.998	0.999
	P	0.20	0.10	0.05	0.02	0.01	0.005	0.002	0.001
1		3.078	6.314	12.706	31.820	63.657	127.321	318.309	636.619
2		1.886	2.920	4.303	6.965	9.925	14.089	22.327	31.599
3		1.638	2.353	3.182	4.541	5.841	7.453	10.215	12.924
4		1.533	2.132	2.776	3.747	4.604	5.598	7.173	8.610
5		1.476	2.015	2.571	3.365	4.032	4.773	5.893	6.869
6		1.440	1.943	2.447	3.143	3.707	4.317	5.208	5.959
7		1.415	1.895	2.365	2.998	3.499	4.029	4.785	5.408
8		1.397	1.860	2.306	2.897	3.355	3.833	4.501	5.041
9		1.383	1.833	2.262	2.821	3.250	3.690	4.297	4.781
10		1.372	1.812	2.228	2.764	3.169	3.581	4.144	4.587
11		1.363	1.796	2.201	2.718	3.106	3.497	4.025	4.437
12		1.356	1.782	2.179	2.681	3.055	3.428	3.930	4.318
13		1.350	1.771	2.160	2.650	3.012	3.372	3.852	4.221
14		1.345	1.761	2.145	2.625	2.977	3.326	3.787	4.140
15		1.341	1.753	2.131	2.602	2.947	3.286	3.733	4.073
16		1.337	1.746	2.120	2.584	2.921	3.252	3.686	4.015
17		1.333	1.740	2.110	2.567	2.898	3.222	3.646	3.965
18		1.330	1.734	2.101	2.552	2.878	3.197	3.610	3.922
19		1.328	1.729	2.093	2.539	2.861	3.174	3.579	3.883
20		1.325	1.725	2.086	2.528	2.845	3.153	3.552	3.850
21		1.323	1.721	2.080	2.518	2.831	3.135	3.527	3.819
22		1.321	1.717	2.074	2.508	2.819	3.119	3.505	3.792
23		1.319	1.714	2.069	2.500	2.807	3.104	3.485	3.768
24		1.318	1.711	2.064	2.492	2.797	3.090	3.467	3.745
25		1.316	1.708	2.060	2.485	2.787	3.078	3.450	3.725
26		1.315	1.706	2.056	2.479	2.779	3.067	3.435	3.707

Figure 4: Table Values of the Student t-Distribution (two-tailed)

Table 1
Calculated t Values

	X-Bar	SD	t-value
Q.1	3.731	0.919	1.305
Q.2	3.769	1.336	1.047
Q.3	4.115	0.864	3.702
Q.4	4.192	0.881	3.858
Q.5	4.192	0.895	4.018
Q.6	3.923	0.845	2.602
Q.7	4.231	0.815	4.658
Q.8	4.846	0.368	19.010
Q.9	4.769	0.430	15.349
Q.10	3.731	1.151	1.042
Q.11	3.731	1.218	0.984
Q.12	3.692	0.970	1.030
Q.13	3.808	0.849	1.882
Q.14	3.615	0.852	0.704
Q.15	3.692	0.884	1.130
Q.16	3.692	1.050	0.952
Q.17	3.846	1.047	1.719
Q.18	3.808	1.021	1.567
Q.19	3.885	0.993	2.013
Q.20	3.846	0.881	2.043
Q.21	4.154	0.881	3.858

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(Received 16th February 2009, accepted 15th March 2009)

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Appendix 1: On-line Student Survey Questions

Monmouth University - Windows Internet Explorer
https://monmouth.desire2learn.com/d2l/orgTools/outHome/outHome.asp?d2l_stateGroups=grid-gridbagenum~mycourse

Monmouth University
BM 311 01 - Mgmt Info Systems
Welcome, Charles | Nov 14, 2008

Course Home | Content | Discussions | Dropbox | Chat | LiveRoom | Quizzes | Grades | Classlist | MLibrary | Surveys | Edit Course | Logout

BM311 - Pedagogy - Preview Survey

Exit Preview

This is an on-line survey designed to collect data to assist you in your learning process of the discipline, MIS.

Please check one box that is most applicable (1: Strongly DISAGREE, 5: Strongly AGREE)

Thank you for your time and cooperation

-- C. Willow

Question 1
Publisher-provided digital slides (.ppt) assisted me in learning the MANAGEMENT side of MIS.

1 2 3 4 5

Question 2
Publisher-provided digital slides (.ppt) assisted me in learning the IT/IS TECHNICAL side of MIS.

1 2 3 4 5

Question 3
Instructor-provided digital slides (.ppt & .pdf) assisted me in learning the MANAGEMENT side of MIS.

1 2 3 4 5

Monmouth University - Windows Internet Explorer
https://monmouth.desire2learn.com/d2l/orgTools/outHome/outHome.asp?d2l_stateGroups=grid-gridbagenum~mycourse

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BM311 - Pedagogy - Preview Survey

Exit Preview

Question 19
TECHNICAL KNOWLEDGE gained through Web source such as YouTube.com will motivate me to seek similar applications to my own job/career.

1 2 3 4 5

Question 20
Should WEBLOGS be adopted in place of a regular textbook for this course, it will help me understand the MANAGERIAL aspects of MIS.

1 2 3 4 5

Question 21
Should WEBLOGS be adopted in place of a regular textbook for this course, it will help me understand the TECHNICAL aspects of MIS.

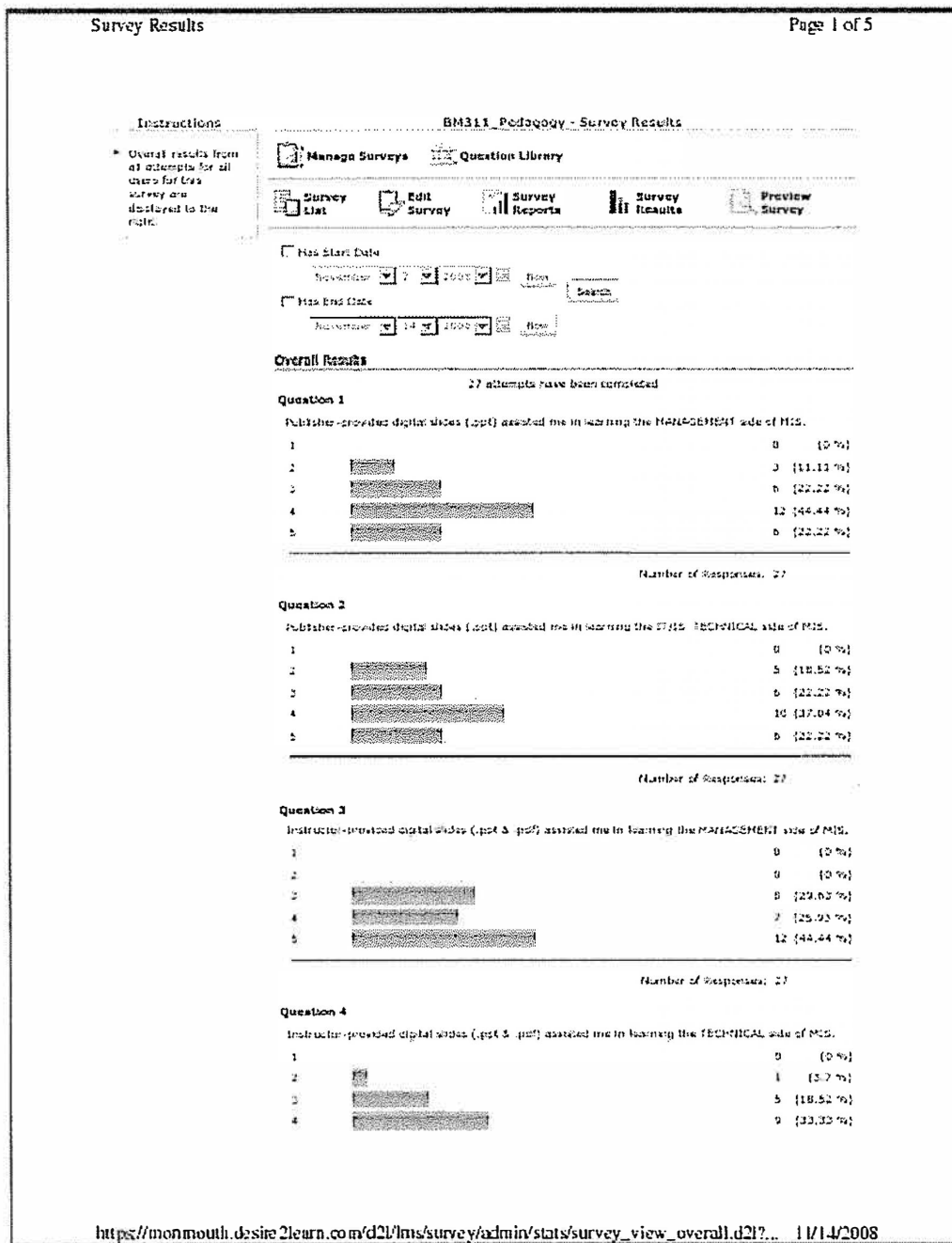
1 2 3 4 5

BM-311-01: Fall, 2008

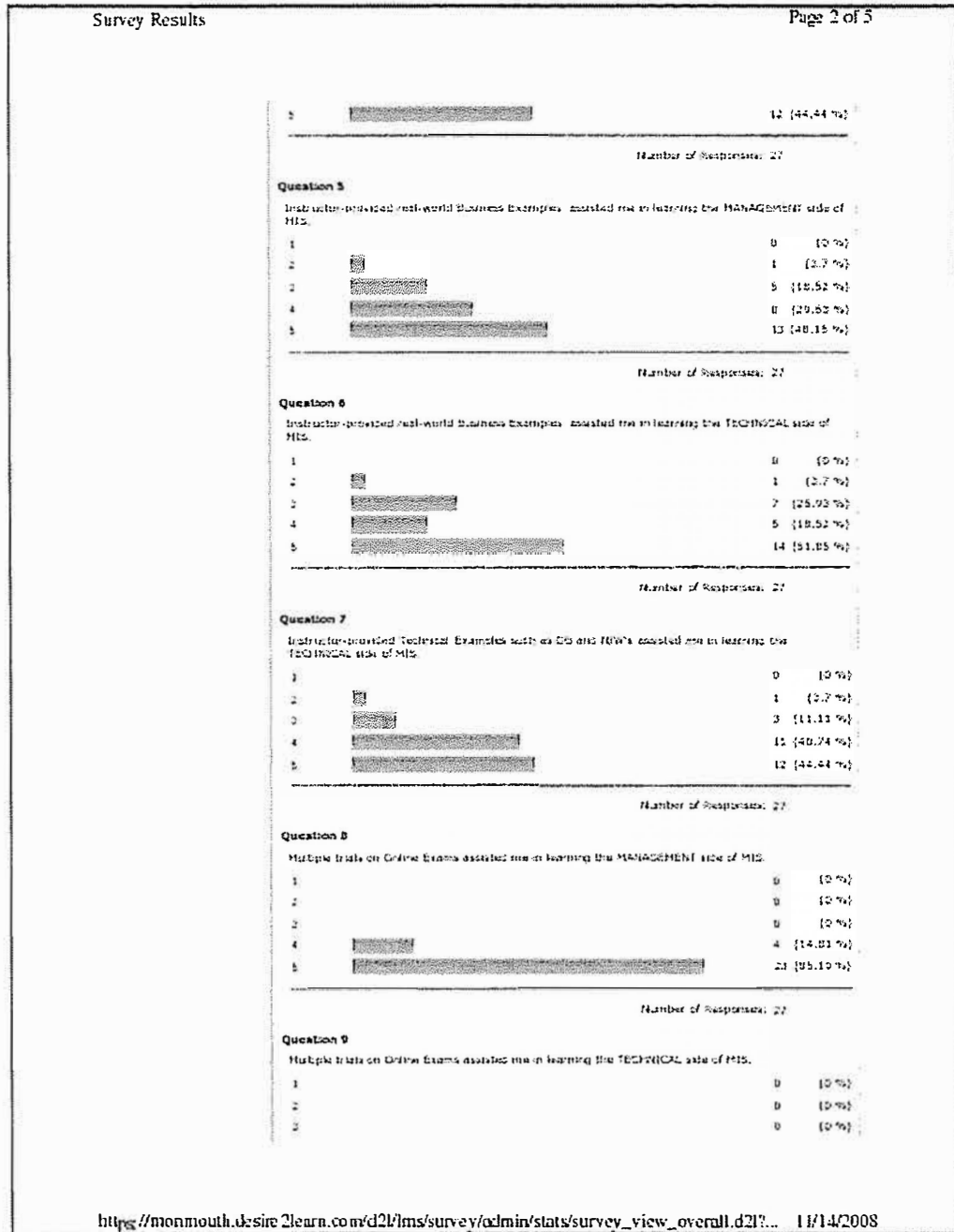
Save

Done

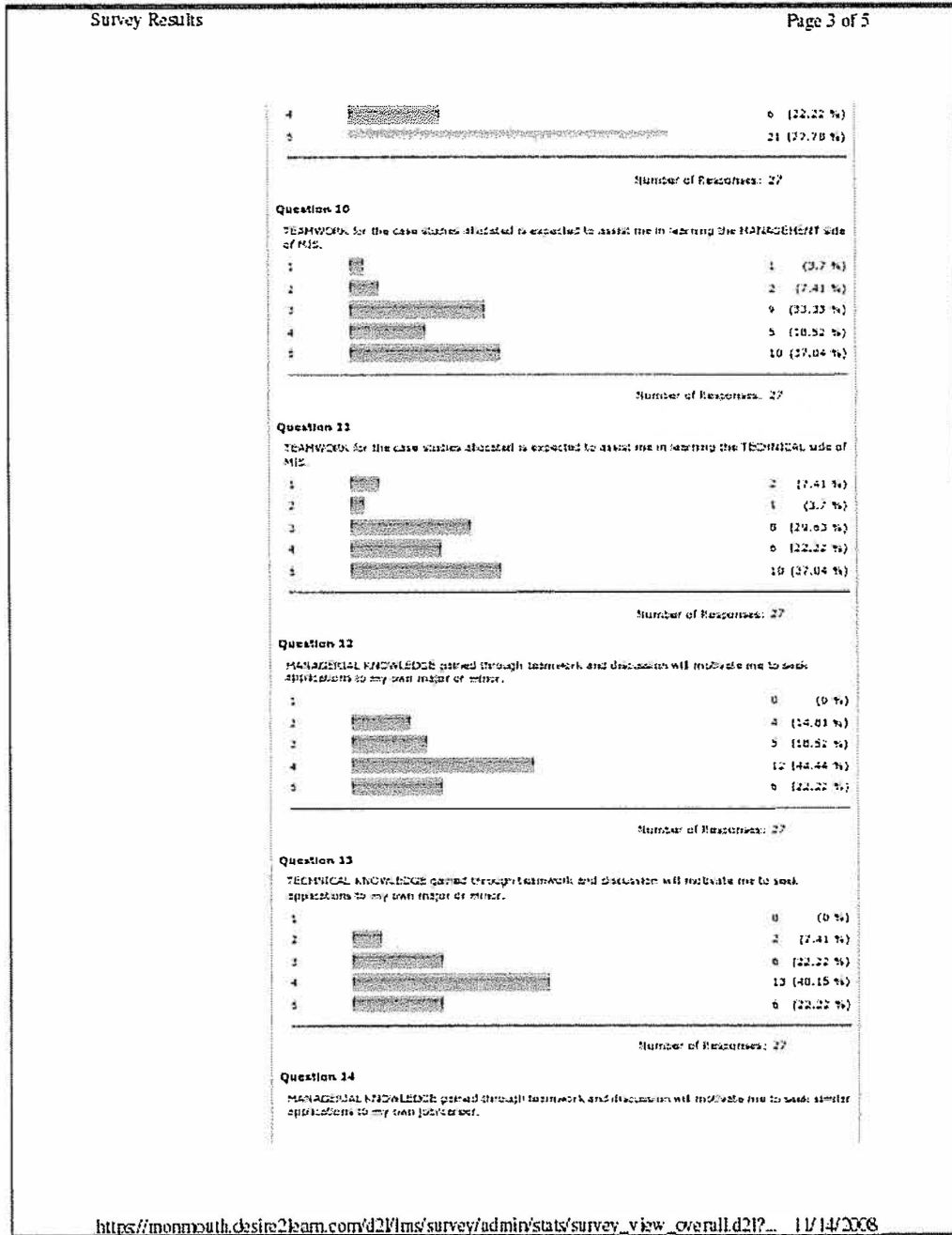
Appendix 2: Question Statistics for Student Survey



Appendix 2: Question Statistics for Student Survey (cont'd)

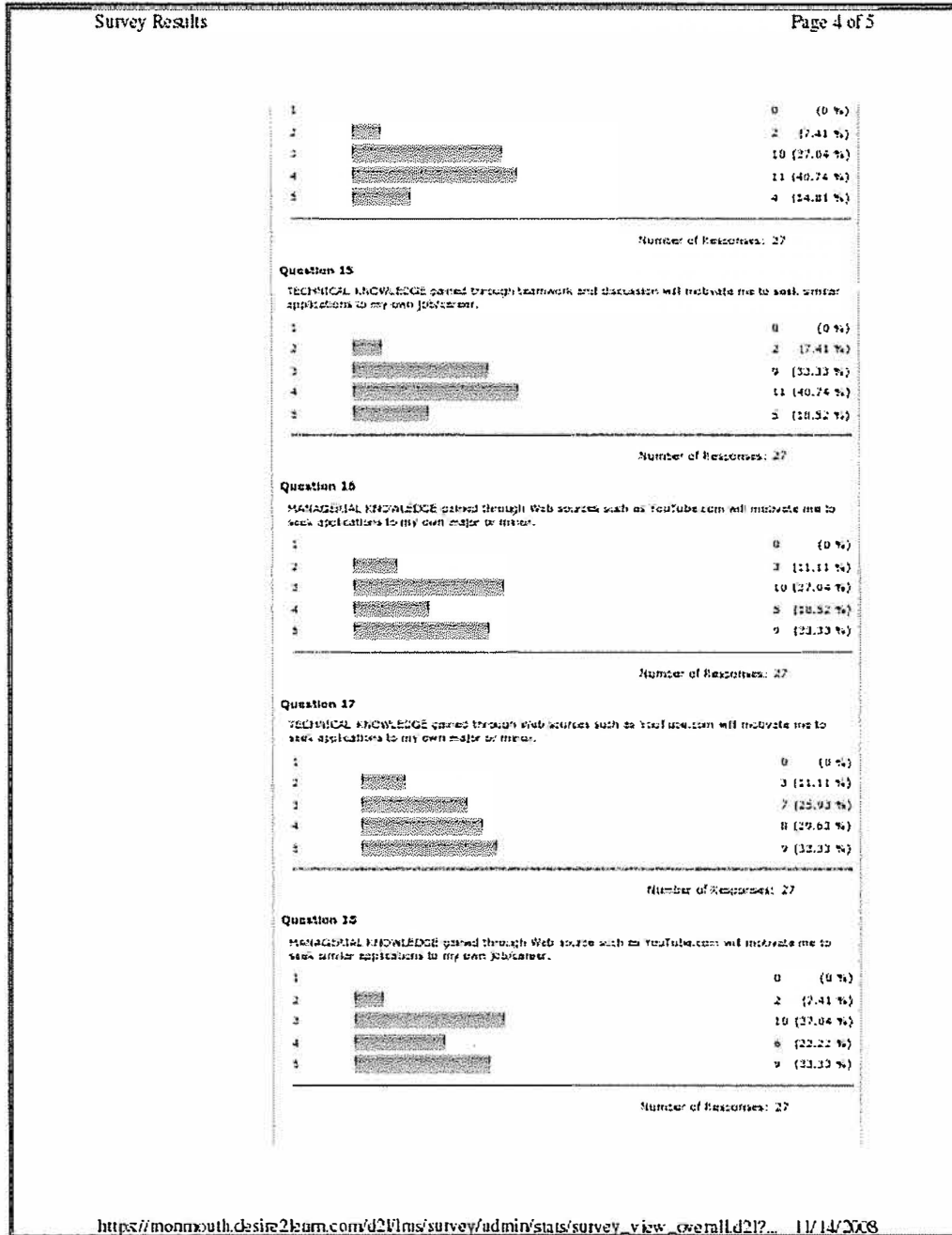


Appendix 2: Question Statistics for Student Survey (cont'd)

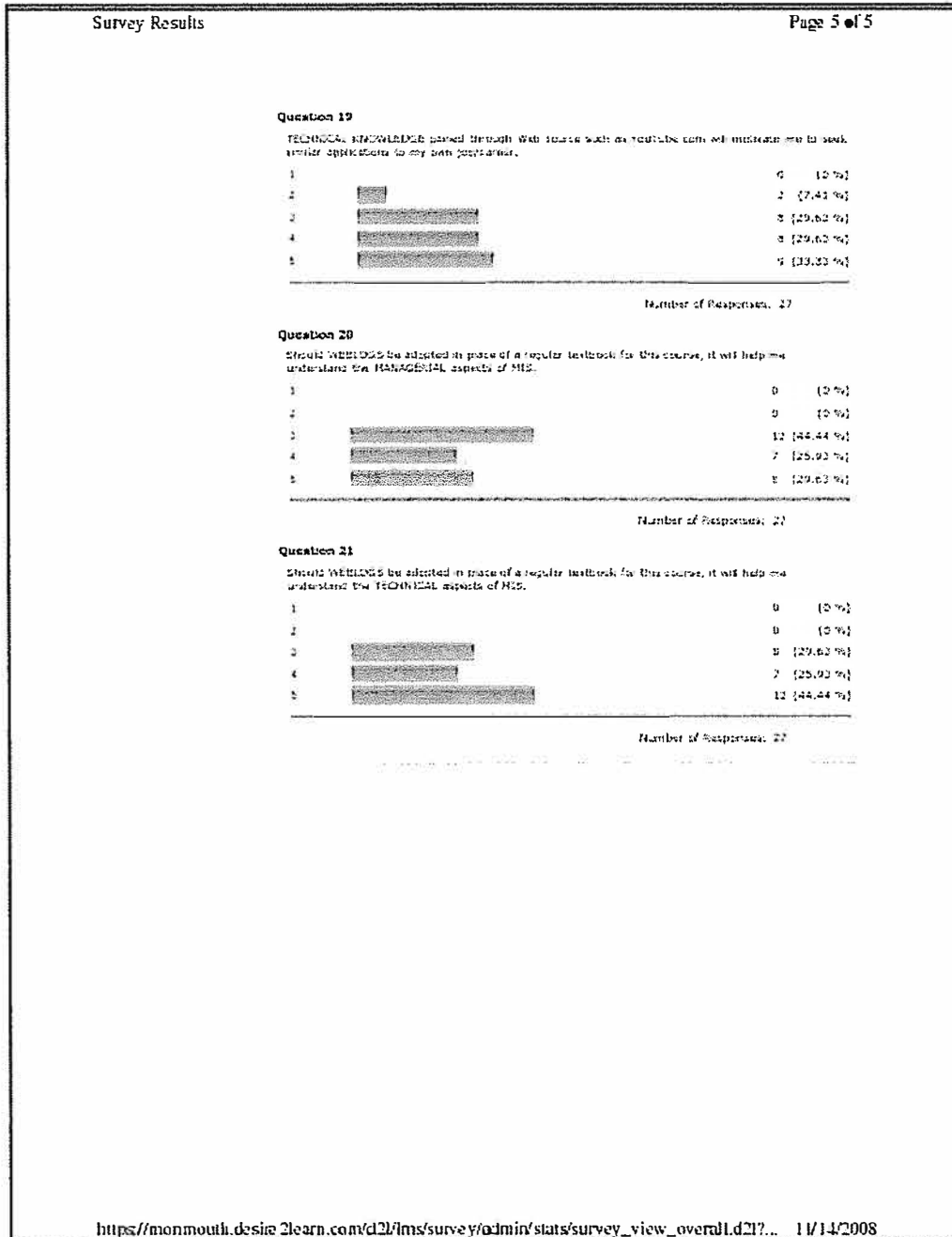


https://monmouth.desire2learn.com/d2l/ims/survey/admin/stats/survey_view_overall.d2l?... 11/14/2008

Appendix 2: Question Statistics for Student Survey (cont'd)



Appendix 2: Question Statistics for Student Survey (cont'd)



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