

# Differences between academia and working world with problems and reporting results

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## Abstract

Business problems and communication in the business working world can and do differ from what business students encounter in the classroom. This paper examines the reasons for the differences and offers recommendations to address these differences. Differences are based on the focus; either learning or productivity. Recommendations to address these differences are using true working world scenario problems and the student providing action e-mails containing a solution to the problem in upper division courses.

**KEY WORDS:** e-mail, textbook problems, term papers, working world.

## 1. INTRODUCTION

An observation from White (2005) was the differences between classroom textbook problems and working world problems. Another observation from White (2005) was the limited student exposure on the e-mail communication needs of the working world. Around 80% of professional workers preferred e-mail as a means of corporate communications (Haag et. al., 2006, p240)

### The differences

The differences are the goals and focus of academia and the working world. Textbook problems are design to teach while working world problems are issues to be solved for productivity. Businesses focus on e-mails to communicate effectively and efficiently the results, where students turn in reports for a grade. Academia has an internal focus with the student learning, while business has an external focus with productivity. Appendix A and Appendix B show these differences in greater detail (White, 2005).

## Why the differences

Students lack the knowledge, skills, and experience of a working professional. Students need to acquire knowledge and skills, while the working professional uses acquired knowledge and skills. And the working professional has experience, able to include extraneous factors in a problem. The issue is the benefit of students acquiring knowledge verse the benefit of business productive decisions that lead to profits.

## 2. DIFFERENCES BETWEEN TEXTBOOK PROBLEMS AND WORKING WORLD PROBLEMS

There are many differences between textbook problems and working world problems. See Appendix A (White, 2005). One difference between a college student and a working world professional is that the student lacks knowledge, insight, and experience. The working world professional already has the knowledge plus the experience and insight. A working world problem may not be obvious. To grasp the real problem, experience and insight may

be required. An employee in the working world must already have an in depth understanding of the problem; i.e., needs more than just knowing which parameters to use (Miller, 1999). Hence, a straight forward problem will be in order for a student that lacks such experience and insight. The objective of a textbook problem is to teach problem solving.

In the working world, the needed data or information may not be readily available. However, the professional generally will have the skills, resources and time to acquire the data or information. For a student this could be very time consuming. The skills and resources maybe lacking.

A student starting to learn how to obtain results is not ready to solve complex results and to communicate and explain complex results. In other words, students are not ready for high level problems. Hence, textbooks must start off with problems with simple answers.

In the working world, the available information or data can be wrong or misleading. However, with the knowledge and experience a professional will be able to recognize and deal with such data errors or misleading information. Such data and information will confuse a student. A student generally lacks the knowledge to recognize and deal with such errors or misleading information.

In a textbook, the assumptions and extraneous factors, such as government regulations, budget, available equipment, etc., are simple in order to keep in line with the knowledge and background of the student. To have insight into how the assumptions and extraneous factors can impact results requires a higher level of understanding that comes from experience which students lack.

The results of a textbook problem are for a grade; determine if the student learned the topic. In the working world, the results are for a different purpose, profitable decision making. The results could impact costs and safety, something the student does not have to address. A wrong result from the student will lead to a lower grade. A wrong

result from a professional could put the company out of business.

The differences between an academic textbook problem and a working world problem can best be summarized as the difference between learning and productivity. Both do result in finding a solution. And this leads to another set of differences; communicating the solution.

### **3. DIFFERENCES WITH COMMUNICATING THE SOLUTION TO A PROBLEM**

Another difference between the classroom and the working world is how the results are communicated. See Appendix B (White, 2005). In the classroom, the work is submitted to the professor in a report on paper. However, around 80% of professional workers preferred e-mail as a means of corporate communications (Haag et. al., 2006, p240).

When it comes to communicating results or solutions, powerful communication is based on objectives, audience and the medium (Beagrie, 2004). Knowing the audience leads to a choice of language to use (Beagrie, 2004). However, there are differences between the audiences; the professor and the employer. One such difference is the communication being informal or formal. Generally, reports or term papers to the professor are formal. E-mail is an informal means of communication (Baron, 1998; Kennedy, 2000, p. 100 ).

Another difference is what the reader(s) need to know (Alciatgore, 2003). A professor needs to know what the student learned. A supervisor needs decision recommendation. Although a student may make a poor recommendation, the focus is on what the student learned and what critical thinking skills developed.

Class reports and term papers generally have five to seven sections. These sections are abstract, introduction, procedures, discussion, results, conclusion, and appendix. Working world e-mails only have three sections. These three sections are summary, discussion, and attachments (See Appendix B). Why the difference?

E-mails are brief conversational bursts or small chunks of text (Rice, 1997; Baron, 1998, p 152). They quickly address issues the reader considers important in the working world (Blake, 2002). An e-mail's first paragraph is occasionally all that a reader has time to read (White, 2005). E-mail provides speed and brevity in communications (Beagrie, 2004). In the business world, time is money. They have a concise purpose (Mallon & Oppenheim, 2002) that leads to a productive decision. Term papers, however, are longer since details are required to determine what the student learned and to enhance critical thinking skills. The differences can best be summed up as the difference between learning and efficient productivity.

#### 4. RECOMMENATION

Lower level division courses can best be used to prepare the student for the needed knowledge and skills. In these courses, textbook problems and reports are stressed. Once the needed knowledge and skills are acquired, they can then be applied in upper level division courses. In these upper level courses, true working world scenarios and action e-mails can be introduced. Appendix C shows an example of such an e-mail. It follows Wagner's (2004) suggestions. In the example the student must first make sure the data are correct and complete. In the working world, analysts are aware to make sure the data are correct and complete. The student must go beyond the given instructions and apply what was learned earlier in the course about data quality.

Wagner (2004) advocates students write action memos. "Such memos are written usually in the form of a decision or an opinion. They have realism and prepare students for a real world activity. They can be read and comprehended relatively quickly, and at the same time can reveal students' knowledge, insight and problem solving capability" (Wagner, 2004). Such content can be the bases for formal reports and presentations. E-mail assignments are recommended for upper level technically intense courses to challenge the students' skills in explaining complicated technical issues (White, 2005).

Students need training on writing style for technical e-mails to function in the working world (Miller, 1977). In the case of e-mails, you write to communicate technical information that the reader(s) need or want to know (White, 2005). These communication skills are more important than specific technical skills (van Slyke, et al., 1998). . Technical skills are of no value if you are unable to communicate your technical ideas and technical solutions to co-workers and managers.

"When management lacks understanding of how writing works as a way of, as a way of structuring knowledge, they risk perpetuating attitudes, structures and policies that militate against the possibility of excellent writing . . . Organizations need to have professionals who can efficiently produce documents with substance, structure and style" (Petelin, 2002). Hence the value of action e-mails in upper division courses.

#### 5. SUMMARY

Moving from academic text book problems in lower division courses to action e-mails, that present ideas and solutions to realistic problems, in upper division courses will better prepare students for the working world. Such action e-mails can provide the content for other modes of communications, such as formal reports and presentations.

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## APPENDIX A. (White, 2005)

### DIFFERENCES BETWEEN CLASSROOM AND "WORKING WORLD" PROBLEMS

#### TEXTBOOK

Straight forward problem or question.

All needed data or information are available in the textbook.

Simple answer, normally a calculated value on an business pad.

All provided data & information are correct.

Just have to state the simplifying assumptions in the calculations.

#### WORKING WORLD

The real problem or issue may not be obvious.

Needed data or information not readily available.

Complex results that have to be communicated and explained.

The available information or data can be wrong or misleading.

Can use simplifying assumptions, but need to fully understand the impact on the results. The assumptions can impact what is reported in the results.

The business calculations & results are for a grade

The business calculations & results can impact costs and safety. The results could make the difference if a company stays in business.

There are no extraneous factors to deal with.

Have extraneous factors: safety, government regulations, budget, available equipment, etc.

Submission is for the Professor to grade.

Submission is what the reader needs (or wants) to know.

Partial credit is sometimes given if the calculations demonstrate that the student understands the material; i.e., have a simple arithmetic error.

There is no partial credit. Either the results are correct or they are wrong. Simple arithmetic errors are no excuse.

## APPENDIX B. (White, 2005)

### DIFFERENCES BETWEEN CLASSROOM AND "WORKING WORLD" COMMUNICATION

#### CLASS ROOM

##### Reports Term Papers

Abstract	Summary or Abstract
Introduction	Introduction
Procedures	Discussion
Discussion	Conclusions
Results	Appendix
Conclusions	
Appendix	

Demonstrate a mastery of the material.

Research a topic and then summarize what found.

Written for the Professor to grade.

#### WORKING WORLD

##### E-Mails

Summary  
Discussion  
Attachments

Communicate needed data or information.

Summary states what addressee needs to know. The Discussion is to explain the problem, logic used in reaching results, justification of recommendations, etc.

Written to the addressee for transfer of information. Addressee could be a supervisor, manager, an engineer, accountant, field technician, etc.

## APPENDIX C.

### EXAMPLE OF AN E-MAIL ASSIGNMENT FOR AN UPPER DIVISION TECHNICAL BUSINESS COURSE.

(This example is derived from Project 8: Data Warehouse and CRM Challenge in Hagg et. al. (2006)).

#### **Scenario:**

Martin Resorts, Inc., owns and operates four Spa and Golf resorts in Colorado. The company has five traditional lines of business: (1) golf sales; (2) golf lessons; (3) restaurants; (4) retail and rentals; and (5) hotels. David Logan, director of Marketing Technology at Martin Resorts, Inc. and Donald Mayer, the lead strategic analyst for Martin Resorts are soliciting your input for their CRM strategic initiative. They wish to identify 100 customers who spend the least amount of money to test a new marketing campaign.

You are provided an Excel file of over 20,000 customer records. Data record fields consist of: customer ID, month, year, resort, sale type, product, business line, sales amount, other. Your job as a marketing analyst is to identify the 100 customers who spend the least amount of money over a period of years. A pivot table will provide such information. The fields to use are customer ID, year, and sales amount.

#### **E-mail answer:**

From: JD@MartinResorts  
To: DL@MartinResorts; DM@MartinResorts

David, Donald

Upon review the Excel file, I found the data to be of very low quality. Over 1,000 customer records indicate a sale but no dollar amount was given. Twenty-four (24) records only had a customer name. The rest of those records were blank. There were several incidents of golf lessons being "returned." And 345 records of sales had negative values. Because the data appears to be corrupted, it is impossible to identify the 100 customers who spend the least amount of money.

John