Validating Academic Training Verses Organizational Training
An Analysis in the Enterprise Resource Planning (ERP) Field

Dr. Jill O'Sullivan
Farmingdale State
Table of Contents

• Introduction
• What is Enterprise Resource Planning
• Questionnaires, Interviews, Case Studies and Surveys
• Researched Literature
• ERP Employer Survey Questions and Results
• Comparison of Training Methodologies
• Key Results

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
• What this researcher did.

• How this researcher did this.

• What results are, what results say and what results mean.

• How the researcher can support what this means.

• Why this information is important.
This research disclosed

- ERP in the workforce,
- ERP academic history,
- Business drivers impacting ERP strategy,
- ERP importance to organizations, benefits,
- Critical success factors in ERP training and education.
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O'Sullivan 2012
Problem and Solution Strategy

• New hires not meeting the needs of companies regarding their ERP education and skills.

• The intent of this research was to determine a correlation between colleges prepared students and employees new to ERP that have gone through their companies ERP training.
Training to use tools required in business is Critical.

- Lack of proper skills—and especially the latest skills—can prevent a company from being a leader, as well as affecting the bottom line profits.

Need in academic to effectively teach ERP
Purpose of Study

- Explored what industry uses in their ERP training, as compared to college prepared students.
- Exposed a correlation between ERP prepared students and employees new to ERP that have gone through ERP training.

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Enterprise Resource Planning

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
What Is Enterprise Resource Planning

- Packaged software applications that support most of an organization information needs within and across functional areas to coordinate information in every area of business.

- Helps to manage companywide business processes, using a common database and shared management reporting tools. [56].
Typical ERP Components

- Financial Management
- Human Resources
- Compliance
- Property Management
- Project Management
- Product Management
- Quality Management
- Asset & Maintenance Management
- Production & Plant Management
- Sales Force Automation
- Field Service/Post-market Support
- Order Management
- Procurement
- Inventory & Warehouse Management
- Distribution, Transportation & Logistics

CUSTOMERS

SUPPLIERS

Core ERP Functionality
Extended Applications
Reporting & Analytics
• Framework for organizing, defining, and standardizing the business processes necessary to effectively plan and control an organization so the organization can use its internal knowledge to seek external advantage. [4].
• The use of the Infor Visual ERP is the focus of this study since it is what the students featured in the interviews (IDI) and Case Studies have learned and mastered.

• Those companies solicited for responses to the ERP Employer Survey are all Infor Visual Users except for some of the APICS ERP Forum.
Questionnaires, Interviews, and Surveys

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Student Self-Reported Knowledge Questionnaire

Validating Academic Training Versus Organization Training Using ERP
(c) Jill O’Sullivan 2012
Student Self-Reported Knowledge

Questionnaire

• Created and used a questionnaire to assess FSC students proficiency/skills at the beginning and at the end of the ERP class experience for four semesters.

• Nine Questions, likert Scale 1,2,3.

• A total of 72 students responded from four classes.
• ERP Students were given the questionnaire with an envelope in class at the beginning of the semester and then at the end of the semester.

• Students completed this questionnaire in the class then put this in a sealed envelope.
Results

• Students learned how to use this real world ERP Infor Visual Tool because of this class experience.

• Students better understand business functions per specific applications and the importance of their cross functionality.
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2011
• Conducted Interviews of ERP Students now in full time positions in industry about their ERP responsibilities and performance.

• Interviews were conducted:
  – In the researchers office at FSC, in the Students offices at their companies, in their Managers offices and in the President’s Conference room of the company the student worked for.
Interviews Students Results

- Students revealed that they are more prepared, knowledgeable, and skilled in using their companies ERP because of the experience in this ERP class.
- They were able to start faster than others with less training and more accuracy.
- Therefore, what this tells us is that this type of ERP preparation is beneficial to ERP user companies as we saw in the many areas these students described in their job functional activities.
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Interviews Managers

- Conducted Interviews of ERP Student’s Managers acquiring information about these students now in full time positions to determine how they performed ERP tasks.

- Interviews conducted;
  - In Managers offices, on teleconference, via email responses.
  - Interviews conducted based on an Interview script.

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
• Students Managers revealed that these students are more prepared, knowledgeable, and skilled in using their companies ERP because of the experience in this ERP class.

• They were able to start faster than others with less training and more accuracy.

• ERP preparation is beneficial to ERP user companies per students managers.
Professors Teaching SAP ERP

Validating Academic Training Verses Organization Training Using ERP

(c) Jill O’Sullivan 2012
Interviewed SAP Professors

- Conducted five telephone interviews of University Professors who use the SAP ERP in their Classrooms since there are No Infor Visual Course available except for the featured classes at FSC.
How Interviewed SAP Professors

- Contacted five SAP Professors via telephone.
- Sent Script Questionnaire via email.
- Followed up with telephone call to discuss.
  - Lasted around thirty minutes to one hour.
  - Recorded
SAP Professors stated they did not have an assessment or way to measure if what was taught to students was successfully meeting the needs of industry.

They did not have information on follow up with their students now in industry.

Many recommended this study as an important contribution.
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Case Studies

• Created a case study script to guide students into describing their transition experience from the ERP classroom into the business world.
• Sent this script via email to these students.
• Went over some in person face to face and some returned the script completed.
• Based on the featured Students input;

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Case Studies

- The case studies include In Depth Interviewing (IDI) of students from this ERP class that have transitioned over into industry.
- Students that have taken the ERP class and are now in industry using ERP as a part of their daily functions exposes their significant distinct advantage because of this ERP hands-on learning experience.
• Students conveyed how the class ERP experience made a difference in their ability to perform their responsibilities using ERP.

• The hands on ERP experience preparation in the ERP Class at FSC prepared students very well for industry ERP positions.
• Created an ERP employer survey in many iterations until we concluded with a 31 question survey, the ERP Employer Survey.

• The survey was put on a tool called Lime Survey due to its open source, user friendly and fantastic report bearing capabilities.

• Survey was open for two weeks with one reminder after the eight day.
The survey had thirty one questions and was segregated into six different groups including;

- ERP experience which had four questions.
- ERP Training and Education which had thirteen different questions.
- ERP Skills which had two questions.
- New to ERP Capabilities which had four questions.
- Performance Management which had six questions.
• There were seven hundred seventy one Infor Visual Customers in the United States and Canada solicited.

• Three hundred thirty one opened the first e-blast; and of those, 41 clicked on the survey link, out of those 39 proceeded to complete the survey.

• Actual Results in section ahead, slide 51.
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Conducted an APICS ERP Survey in ERP Forum.

Sent using Survey Monkey

Soliciting APICS NYC/LI Membership

- Survey had 12 questions
  - Combination fill-in blank and multiple choice
- 19 responders
Most important information revealed from this survey that correlates with this study is in response to this question:

- Cross-functional collaboration is a critical factor in the success of an ERP system. Select the functions that are actively involved in the development or continuous improvement of the ERP system in your organization:
• ERP In Academia
• ERP Curriculum Development
• Collaboration Efforts - Industry and Academia
• Training Profiles
The research on the integration of ERP into university curricula loosely falls into four general themes: (SAP ONLY Represented here)

- (a) ERP curriculum development
- (b) adoption levels of ERP software in curriculum
- (c) integrating ERP concepts into a single course or project
- (d) lessons learned from implementing ERP into...
Industry and Academia

- Companies are eager to consult with faculty on developing realistic hands-on exercises because they are aware that students in these classes will then be better prepared as potential employees. [6]
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Training, instruction, or educational courses can be provided through a variety of media:

- **Personal instruction**
  - Classroom instruction
  - Seminars
  - On-the-job (OJT) training

- **Written instruction**
  - Textbooks
  - Manuals
  - Guides

- **Teaching via computers**
  - Computer-Based Training
  - Web-Based Training

- **Teaching via audio tapes or video tapes**

- **Distance learning**

- **Or a combination of the above.**
A Full Coverage Support System for Business

The primary focus of ERP is to improve and increase the flow of accurate information within an organization (Norris, Hutley, Hartley, Dunleavy, & Balls, 2000).

ERP software improves cooperation, collaboration and interaction between all business functional areas or units in an organization.
The research on the integration of ERP into university curricula loosely falls into four general themes:

(a) ERP curriculum development
(b) adoption levels of ERP software in curriculum
(c) integrating ERP concepts into a single course or project
(d) lessons learned from implementing ERP into...
The ERP courses at FSC utilize a variety of media:

- Personal instruction
  - Classroom instruction
  - Seminars (Visiting Specialists)
  - On-the-job (OJT) In Class apprenticeship type training
- Written instruction
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
• The survey had thirty one questions and was segregated into six different groups including:
  - ERP experience which had four questions.
  - ERP Training and Education which had thirteen different questions.
  - ERP Skills which had two questions.
  - New to ERP Capabilities which had four questions.
  - Performance Measurements which had two questions.

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
ERP Survey Elements

- Nine Tasks for Comparison
- Six Training Methodologies
- Four Employee Categories

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Nine Tasks

1. Search to find data/understand impact on functions
2. Drill down in different module
3. Perform basic activities per modules
4. Obtain reports and use for decision making
5. Track activities per operation flows
6. Display existing data and create new data
7. Create reports to perform analysis
8. Validating Academic Training Verses Organization Training Using ERP
9. (c) Jill O’Sullivan 2012
Four Training Methodologies

- Training Methodologies:
  1. On the Job Apprentice; includes working closely with functional manager in the position hired for.
  2. On the Job Training Program includes; Inside trainers (responsible for ERP training Inside company)
  3. Outside trainers includes; Outside Consultant.

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
1. **NO ERP EXPERIENCE; Includes;**
   a) 1st time job out of college,
   b) new employee with work experience
   c) current employee

2. **ERP EXPERIENCE BUT NOT CURRENT ERP TOOL; Includes;**
   a) academic trained
   b) 

---

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
A description of what these ERP students due in each area that equates to these tasks follows.

All required exercises, assignments, homework's, quizzes, tests and presentations are put in to the SUNY Learning Network SLN Angel system that controls all class materials per chapter modules.
1. Search to find data/understand impact on functions

- Students required to search per exercises, assignments, homework, quizzes tests and projects. Required to prove that they have found certain items per each module when searching: customers, addresses, PO’s, part numbers, revisions, ECN’s, work orders, BOM’s, quotes, suppliers, vendors, employees, reports, invoices, pricing, receivables, customer orders, BEO’s, delivery dates, due dates, order dates, customer credit limits, late shipments, MRO returned material, sales per period, PO’s per period, shipments per period, jobs on shop floor, resources, warehouses, inventory, locations, burden rates, labor rates, job profiles, profits by date, part number, customer order departments, delivery dates.

Students go to help menu to find information then tell how they found it and what it means. Requires students to describe what they have done, what it means and how it affects other functional areas. Students must prove with screen shots on all assignments exercises, homework, quizzes, tests and projects that they comprehend.

They are graded on what they provide as evidence of the requirements. They must prove they know this with screen shots of what they did.
2. Drill down in different module

- Students are required in this hands on class to go into their ERP database and drill down into every module to find, gather and input data.

- This is required for exercise, assignments, quizzes, tests and projects all which are graded.

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
# Infor ERP VISUAL Enterprise

<table>
<thead>
<tr>
<th>Sales</th>
<th>Purchasing</th>
<th>Inventory</th>
<th>Engineering &amp; Manufacturing</th>
<th>Scheduling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orders</td>
<td>Orders</td>
<td>Inventory Transaction Entry</td>
<td>ECN's</td>
<td>Concurrent Scheduler</td>
</tr>
<tr>
<td>Customer Inquiry</td>
<td>Vendor Inquiry</td>
<td>Material Planning Window</td>
<td>Manufacturing Window</td>
<td>Scheduling Window</td>
</tr>
<tr>
<td>Customer Maintenance</td>
<td>Vendor Maintenance</td>
<td>Maintenance</td>
<td>Work Order Traveler</td>
<td>Throughput Window</td>
</tr>
<tr>
<td>Shipping Entry</td>
<td>Purchase Receipt Entry</td>
<td>Traceability</td>
<td>Labor Ticket Entry</td>
<td>Utilization Percentages</td>
</tr>
<tr>
<td>Sales Reporting</td>
<td>Task Maintenance</td>
<td>Physical Inventory Count</td>
<td>Quality</td>
<td>Production Schedule Report</td>
</tr>
<tr>
<td></td>
<td>Receiving Report</td>
<td>Cost Simulation</td>
<td>VISUAL Quality</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inventory Valuation Report</td>
<td>Reporting</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financials</th>
<th>Executive</th>
<th>Administration</th>
<th>User Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ledger</td>
<td>Executive Information System</td>
<td>Users and Employees</td>
<td>Notepad</td>
</tr>
<tr>
<td>Receivables</td>
<td>Exec. Information System Host</td>
<td>Maintenance</td>
<td></td>
</tr>
<tr>
<td>Payables</td>
<td>Throughput Window</td>
<td>Database</td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td></td>
<td>Tools and Utilities</td>
<td></td>
</tr>
<tr>
<td>Admin and Utilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Perform basic activities per modules

- Students are required to perform tasks per exercise, assignments initially giving them an overview of the system.

- Then students perform more detailed tasks per exercises, assignments, homework, projects, quizzes and tests.
5. Track activities per operation flows

• The student activities build on each other as if they were a company building and selling a product.

• As a manufacturer of the parts (solar panels) they are responsible for all aspects of the companies information flow.

• They have to input data that affects other areas and track that information, specifically...
• Students are required to prove that they can find data and create new data whether in the form of quotes, purchase orders, invoices, bill of materials, work order, shop floor resources, receivable and any other real life transaction a company does. They prove they can do this buy submitting screen shots per assignments.
7. Create reports to perform analysis

- Students must create specific reports and explain the analysis of these reports. As with all other assignments these are graded.
8. View and manipulate data

- Students prove they can view information in their system and be able to manipulate that data for example they will have to find or enter a quote, they might have to change the ship to, terms, unit of measure or part revisions or anything else that real companies have to deal with.

- They then have to either find existing
Students often do this in their assignments; they must be able to understand where to get info and where info goes when entering. They must be able to pull from different screens in completing their assignments. Examples on exercise and activities slide.
Tasks

- Enter Quotation Order on the Shop Floor
- Enter Customer Order from Quotation
- Evaluating
- Material to a Work Order
- Reviewing the Cost of the Work Order
- Completion of the Work Order
- Processing a Shipment
- Measuring

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
All Nine Tasks are found in Student Requirements and were derived from student activities, literature and company information.
Majority of company responses

1. IT departments manage ERP training.
2. Department managers decided who gets trained.
3. Companies use an On the job apprentice training.
4. Companies create their ERP training database in house.

5. ERP Experience But Not with Current ERP was the employee category chosen when hiring for an opportunity.
6. Training methodology used was the on the job apprentice which includes working closely with functional manager in the position hired. Validates the method used in the classroom as apprentice type training. We also saw evidence of in the interviews and featured case studies.

7. ERP revealed that the most important per training methodology came out to be Improve production / process for on the job apprentice. Therefore the tasks in the class within production and processes validates the correlation and ties into research about key performance factors.
Questions 8-10 Results

8. Revealed that those with No ERP use a training database while those with current system or not use a live ERP system. *conclude that the system in the classroom is validated.

9. Those with no ERP and or without the current tool receive apprentice on the job training while those with ERP experience * in class training is validated.

Companies train about one to five new employees a year.
Time and money are the driving forces in ERP Training.

The time of training ranges from one week to eight weeks while the class is fifteen weeks twice a week.

Therefore we see more actual training with the ERP class resulting in a student who is more prepared which correlates with the interview.
The modules new hires exposed to in training are inventory, sales, purchasing, engineering and manufacturing.

This correlates directly with the course material subject ERP offering per the case studies herein and is highlighted by the students interviews. [27]
Critical skills required are:

- How to interpret demands & supplies
- Have knowledge and experience with Manufacturing Work orders.

Therefore and because of this information the case study and interviews validate that this is taught in the class and required by industry.
• Companies would include in training:
  – ERP Knowledge of a general overview of standard flow of organization
  – General system navigation. [27]
• Because we saw this in these results and recognize industries need for these skills we therefore confirm that the class utilized these and validates the correlation.
Questions 20-23

• These four questions resulted in 576 answer which are reviewed here in graph form for a quick view of the conclusions. Slides 79-109

• The first to be viewed are NO ERP experience starting with On the Job Apprentice; Inside trainers, Outside Consultant and Outside Third party Trainer.

• The second to be viewed are ERP experience

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
New to ERP Capabilities

Each of these questions asked the company to rank their responses with Ranking Choices; 1 Least Competent, 2 Competent and 3 Most Competent. The Results follow in the form of graphs.

- 20. When you put an employee through the company's ERP education and training program (in a Job Training Apprentice), how do they rate in being competent after completion per employee category?

- 21. When you put an employee through the company's ERP education and training program (in a Job Training Inside), how do they rate in being competent after completion per employee category?

- 22. When you put an employee through the company's ERP education and training program (in a Job Training by Outside Consultant), how do they rate in being competent after completion per employee category?

- 23. When you put an employee through the company's ERP education and training program (in a Job Training by Outside Third Party), how do they rate in being competent after completion per employee category?

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
When you put an employee through the company's ERP education and training program, how do they rate in being competent after completion?

Comparisons

Question 20: To ERP Class Per Task

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

(NO ERP Knowledge; Training Method - On Job Apprentice)

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O'Sullivan 2012
-NO ERP Knowledge; Training Method -On Job Apprentice

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O'Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O'Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2011
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Graph Task Comparisons Question 22 To ERP Class Per Task; Category -NO-ERP Knowledge ; Training Method -Outside Consultant Training

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
ERP Knowledge, Training Method: Outside Consultant Training

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
ERP Knowledge, Training Method: Outside Consultant Training
Graphs Task Comparisons Question 23 To ERP Class Per Task; Category - NO ERP Knowledge; Training Method - Outside Third Party Training

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Graphs Task Comparisons Question 23 To ERP Class Per Task; Category - NO ERP Knowledge; Training Method - Outside Third Party Training

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Graphs Task Comparisons Question 23 To ERP Class Per Task; Category -NO ERP Knowledge; Training Method-Outside Third Party Training

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Graphs Task Comparisons Question 23 To ERP Class Per Task; Category - NO ERP Knowledge; Training Method - Outside Third Party Training

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Graphs Task Comparisons Question 20 To ERP Class Per Task; Category – ERP Knowledge; Training Method -On Job Apprentice

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Graphs Task Comparisons Question 20 To ERP Class Per Task; Category – ERP Knowledge; Training Method - On Job Apprentice
Graphs Task Comparisons Question 21 To ERP Class Per Task; Category – ERP -Knowledge; Training Method- Inside Trainer

Validating Academic Training Verses Organization
Training Using  ERP
(c) Jill O’Sullivan 2012
Graphs Task Comparisons Question 21 To ERP Class Per Task; Category – ERP -Knowledge; Training Method- Inside Trainer

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Graphs Task Comparisons Question 21 To ERP Class Per Task; Category – ERP -Knowledge; Training Method- Inside Trainer
Graph Task Comparisons Question 22 To ERP Class Per Task Category -ERP ; Training Method-Outside Consultant Training

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Graph Task Comparisons Question 22 To ERP Class Per Task Category -ERP ; Training Method-Outside Consultant Training

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
• Majority of companies surveyed measure the results of their ERP system training and skills with On the job performance reviews.
Critical to this study, is the answers herein because we see that the following has resulted from ERP training which related directly to literature about ERP implementation, interviews and case study findings;

- Ease of use of the system
- Lack of supervision required,
Questions 26, 27, 28, 29 and 30

- Reveal the demographic information about these companies. Those responding included: Presidents, CEO’S, Vice Presidents, Directors, IT Managers, Engineering Managers, Operation Managers, Finance Managers, and ERP Managers.

- Only one response for Public Industry Sector reported and that was as an Assembler, no

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
For NO ERP Experience

• Apprentice to Inside Company Training
  Because the data revealed that the apprentice on the job type training was used more therefore this tells us that there is more confidence in this type of training.

• Apprentice to Outside Consultant Training
  Because the data revealed that the apprentice on the job type training was used more therefore this tells us that there is more confidence in this type of training.
For ERP Experience

• **Apprentice to Inside Company Training**

  Because the data revealed that the apprentice on the job type training was used more therefore this tells us that there is more confidence in this type of training.

• **Apprentice to Outside Consultant Training**

  Because the data revealed that the apprentice on the job type training was used more for those new to the company those with experience were more likely trained by an outside consultant.

• **Apprentice to Outside Third Party Training**

  Because the data revealed that the apprentice on the job type training was used more therefore this tells us that there is more confidence in this type of training.
Comparing Results of Training Methodologies For No ERP

• Inside Company to Outside Consultant Training
  Because the data revealed that the outside consultant type training was used more therefore this tells us that there is more confidence in this type of training.

• Inside Company to Third Party Training
  Because the data revealed that the third party training was used more for those new to the company with No ERP therefore this tells us that there is more confidence in this type of training.
Comparing Results of Training Methodologies For ERP Experience

• Inside Company to Outside Consultant Training

Because the data revealed that the outside consultant type training was used more therefore this tells us that there is more confidence in this type of training.

• Inside Company to Third Party Training

Because the data revealed that the third party type training was used more for those new to the company with no ERP therefore this tells us that there is more confidence in this type of training.
Comparing Results of Training Methodologies For NO ERP Experience

- Outside Consultant to Outside Third Party Training

Because the data revealed that the third party type training was used more therefore this tells us that there is more confidence in this type of training.
Comparing Results of Training Methodologies For ERP Experience

- **Outside Consultant to Outside Third Party Training**

Because the data revealed that the third party type training was used more therefore this tells us that there is more confidence in this type of training.
Key Results

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2011
Because of the data received in Interviews, Questionnaires, Case Studies and the ERP Employer Survey within this study the key results are as follows;

- We saw proficiency in the use of ERP on the job by these students and conveyed by their management.
- We conclude that these ERP Students are more prepared and have better skills in using an ERP database than new employees in these companies that have gone through initial ERP training.
- Management in these companies concur that these Students are more prepared than new employees trained in ERP at companies and the survey data indicates that those new to ERP can have just as much confidence or competency as those that have ERP experience but with a different ERP.
• People new to ERP that go through an academic program like the one featured here specifically can acquire skills and ERP knowledge that new employees new to ERP might not acquire even after their companies ERP training.
Key Results

- Apprentice on the job training is validated as a preferred method of training.

- Those with NO ERP experience but with work experience are equivalent to those who are in a different functional area within the company and do about the same in competence after training.

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
The academic preparation of students for industry positions is validated as worthy since based on this information and because of these results, the researcher can conclude that the academic training meets or exceeds that which is done in industry according to this research.
Key Results

• The results revealed when comparing the types of training for both No ERP experience and ERP experience revealed new knowledge at least to this researcher.

• Results indicate that:
  – Apprentice On the Job type training was the preferred training type when compared to all others.
  – When comparing Insider training to outside consulting and third party consulting, both the outside consulting and third party consulting respectively were preferred.
  – When comparing outside consultant to third party type training the third party was preferred.

Therefore what this tells us is that companies pay for outside training because their internal training is not as preferred.
• As technology becomes more advanced in the industry, the need for a better trained and prepared workforce becomes more critical to building a sustainable talent pipeline.

• Lockheed Martin, VP Manufacturing Operation, Mike Packard
• Today’s business people (and tomorrow's) should understand what an ERP system can do for a company.

• The intent, as in any educational environment, is not only to help students attain an understanding of the material,

• but to also master that material in the environment in which they will be required to
The areas of concentration for the training, the training methodology is very similar if not the same as college prepared per the entity in this study.

The training system mostly used for new hires is a training system, which is what is used in the studied cases.
Preparing students for entry and success in the workforce is paramount.

There is a demand currently for students and employees with this experience.
Questions?

• Dr. Jill O’Sullivan
• Farmingdale State College
• osullija@farmingdale.edu
• 516 984-7122
Dr. Jill O'Sullivan

- Professor Farmingdale State College
  Computer System Department

- President APICS NYC/LI Chapter
  www.apicsnyc/li.org

- Manufacturing Executive Leadership Council

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2012
References


A.A. Chawdhry, M. J. Donohoe, Delivering ERP Learning To Students In A University Business Program.

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2011
References


- J. Esteves, J. Pastor, Enterprise Resource Planning Systems Research: An Annotated Bibliography, Communications of The

Validating Academic Training Verses Organization Training Using ERP
(c) Jill O’Sullivan 2011