SAMA SAN ANTONIO MANUFACTURERS ASSOCIATION

DONALD J. KENTON

ATMA with MSSC Certifications

Industry Perspective
AMTEC Conference Feb. 9, 2011
Donald J. Kenton, Sc. D.

ALAMO AREA ACADEMIES

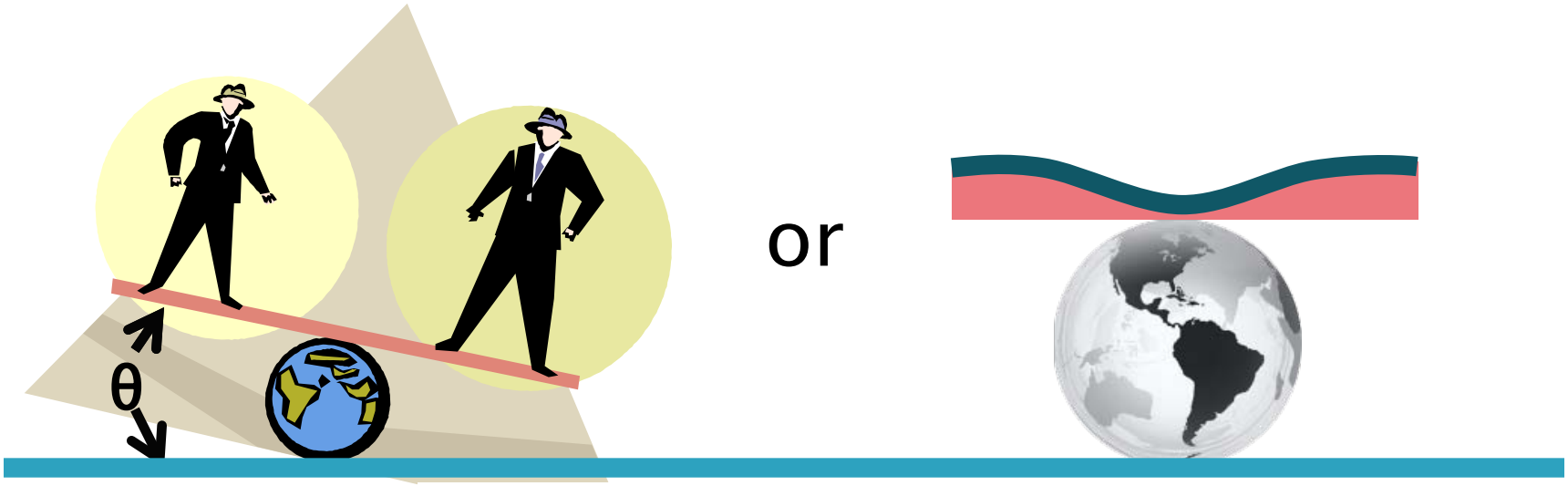
ALAMO COLLEGES

ATMA Program Discussion Points

- Drivers and Curriculum Development
- Academies Model & Business Development
- Strategic Considerations
- Summary Capstone
- Contacts

Why an ATMA Program

- "The world is flat" (T. Friedman) but….



REGULATIONS, EXCHANGE RATES, TRADE RULES,TECHNICAL SKILLS, RESOURCES

San Antonio Industry Drivers

- Competitive Advantage by Innovative Workforce
- Delivery and Quality Standards Met by Skilled Workforce
- Replacement of Retiring “Baby Boomers”

ATMA – Industry Desired Outcomes

- Basic Preparation
  - Life skills
  - Mathematics, reading, communication
  - Group skills
- Technical Preparation
  - Industry sector skills
  - Introduction to manufacturing & applied sciences
  - Recognized academics and national certificates
  - Instilled desire for continued technical & career growth

ATMA Curriculum Development

ATMA Curriculum Integration

INMT 1248 - MANUFACTURING PROCESSES	
MCHN 1302 – MATH & DRAWINGS	1
QCTC 1243 – QUALITY ASSURANCE	
MCHN 1438 – MACHINE 1	2
MCHN 1320 – PRECISON TOOLS	
MCHN 2266 - PRACTICUM – 8 WEEKS	3
INMT 2303 – PUMPS, COMPRESSORS, MECH. DRIVES, MAINT. WELDING	4
ELPT 1319 – BASIC ELECTRICAL	
MCHN 1426 – INTRODUCTION TO COMPUTER AIDED MANUFCTURING	5
ENTC 1301 – INTRODUCTION TO ROBOTICS	

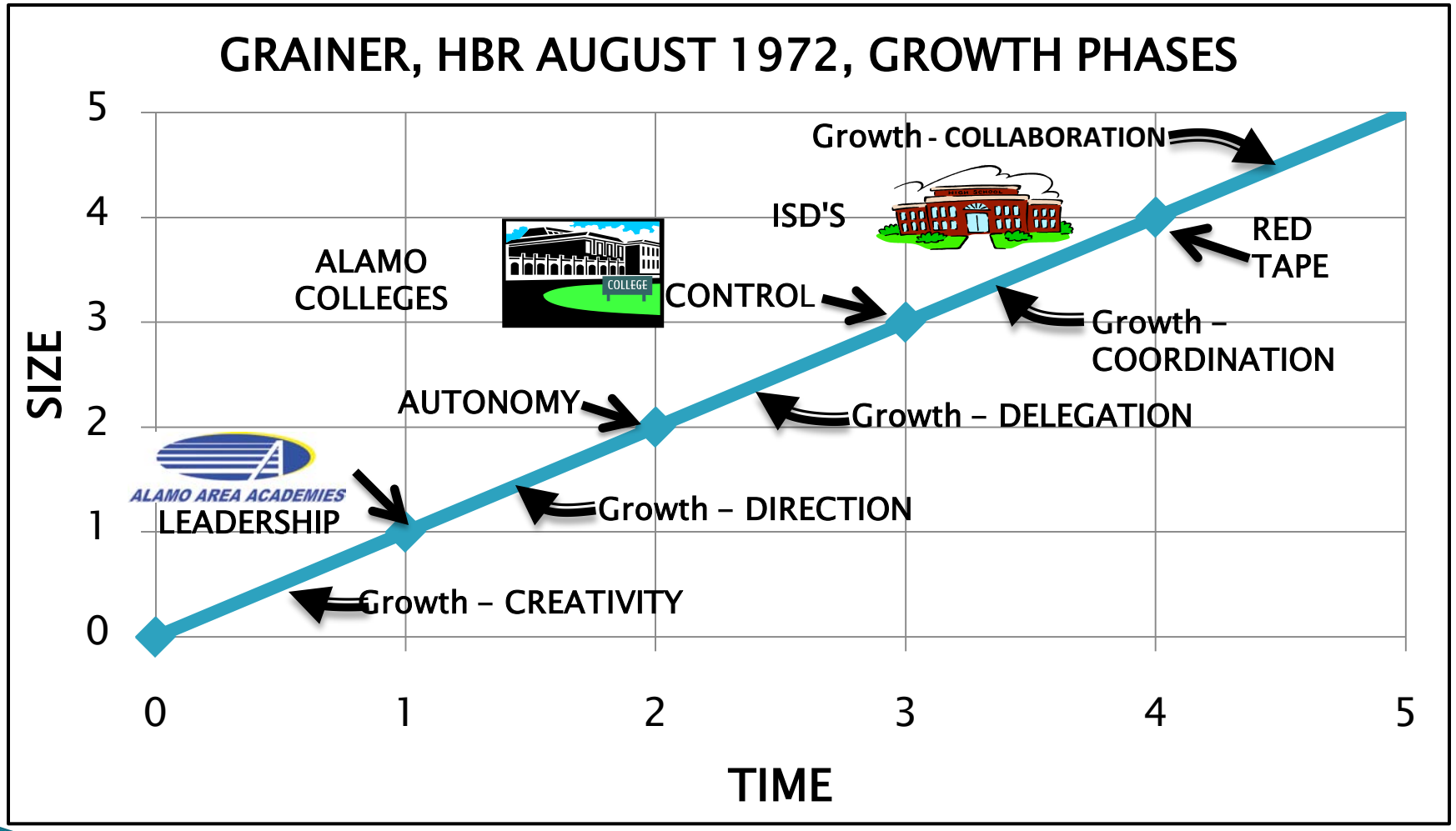
Revised ATMA Program Year 1

SEMESTER 1
INMT 1248 – MANUFACTURING PROCESSES
MCHN 1302 – MATH & DRAWINGS
QCTC 1243 – QUALITY ASSURANCE
MSSC UNIT 1 – SAFETY PLUS OSHA CERTIFICATE, TEAM PROJECT
SEMESTER 2
MCHN 1438 – MACHINE 1
MCHN 1320 – PRECISION TOOLS
MSSC UNIT 2 – QUALITY, TEAM PROJECT

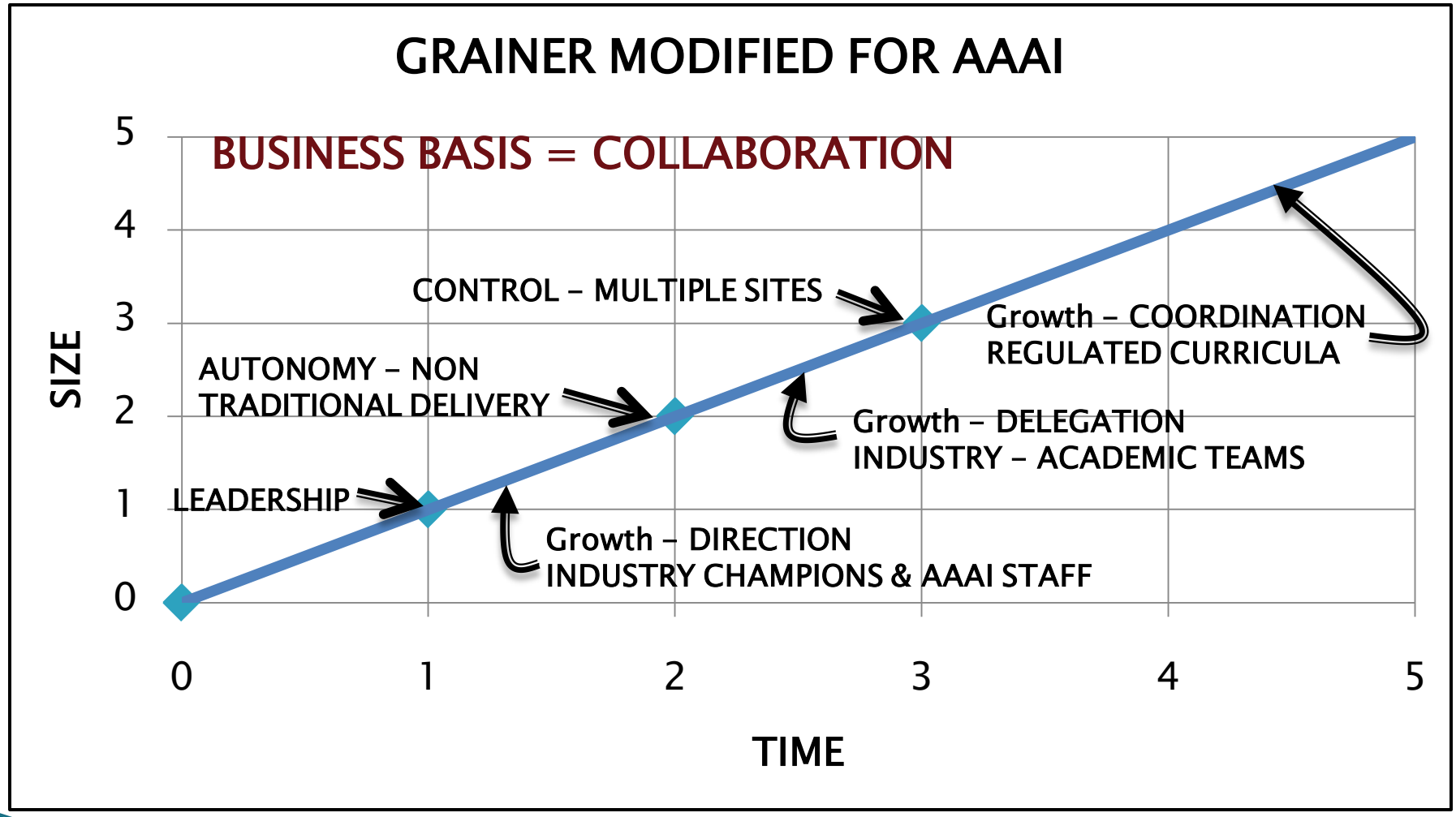
Revised ATMA Program Year 2

SEMESTER 3
PRACTICUM – 8 WEEKS
SEMESTER 4
INMT 2303 – PUMPS, COMPRESSORS, MECHANICAL DRIVES, ,MAINT. WELDING
ELPT 1319 – BASIC ELECTRICAL
MSSC UNIT 4 – MAINTENANCE , TEAM PROJECT
SEMESTER 5
MCHN 1426 – INTRODUCTION TO COMPUTER AIDED MANUFACTURING
ENTC 1301 – INTRODUCTION TO ROBOTICS
MSSC UNIT 3 – MANUFACTURING, TEAM PROJECT

AAAI Business Position



ATMA Business



ATMA Development Challenges

- All collaborators must engage
- Collaborators must understand new roles
  - Industry: Training req's & intern sponsorships
  - ISD's: Student preparation and facilitation
  - Alamo Colleges: Instructional delivery
- Counteract external, arbitrary constraints
  - State education requirements
  - Perceived interpretation of labor laws
  - Regional misperceptions of applied technology

ATMA Program Strengths

- Directly targets student and industry interests
- Instills a culture of lifelong learning
  - Progressive career and skills development
- Imbeds nationally recognized certificated skills
- College credit lowers student & industry costs
  - Certificates of completion
  - Associate degrees
- Industry will Give Hiring Priority to Graduates

ATMA Program Weaknesses

- Inconsistent student readiness
  - Improve secondary school preparation
- Qualified instructors not readily available
  - Start instructor development program
- Limited expertise in team based learning
  - Instructor development
- Historic lack of integration and stackable technical curriculum
  - Align with higher level certificates and degrees
    - AMTEC, Manufacturing Technology, Welding, Industrial Automation, Aerospace

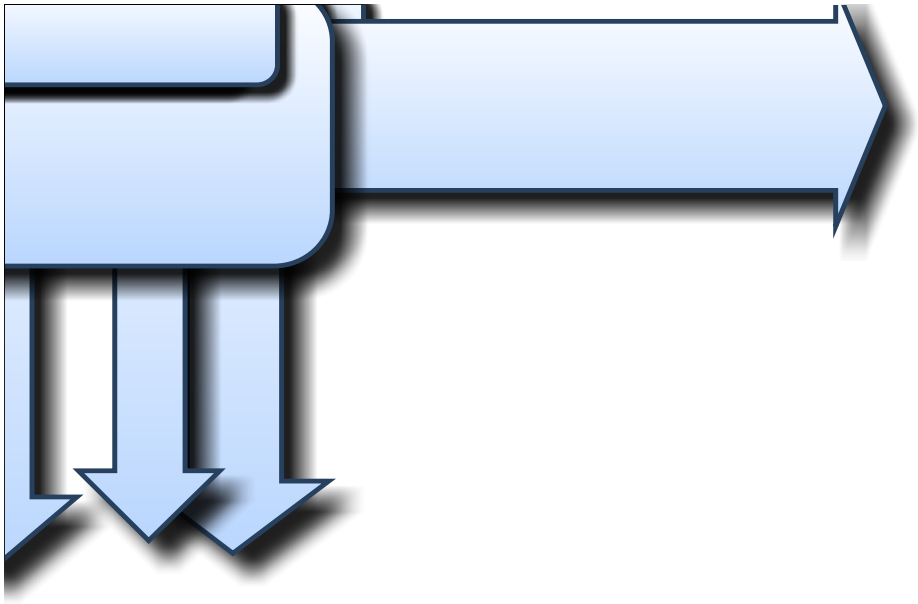
ATMA Program Opportunities

- Align with Tech Prep for:
  - Student readiness
  - Instructor development
- Articulate full ATMA credit into:
  - AAS programs
  - Apprenticeships combined with AAS program
- Establish ATMA programs aligned with:
  - Automotive (AMTEC)
  - Aerospace
  - Bio-medical
  - Chemicals, materials, & Industrial power generation

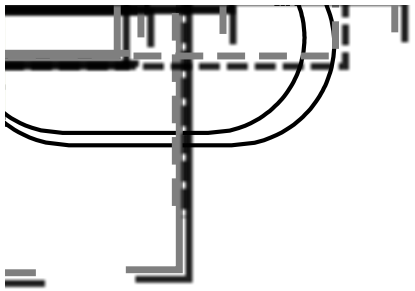
ATMA Program Threats

- Colleges reluctant to disrupt traditional academic model for a collaborative model
- State curriculum mandates may restrict student hours available for program
- State mandated emphasis on standardized tests may restrict student availability
- Industry partners hesitant in taking on interns
- Funding limitations may restrict program availability or significantly raise costs
- College assessment test changes could reduce eligible students

ATMA Current and Future Growth



Training and Education Map



Lessons Learned Summary

- Clearly define roles of all collaborators
- Establish clear lines of communication
- Ensure continued industry commitment
- Provide a well defined, stackable curriculum
- Establish instructor development programs
  - Align technical expertise with education needs
- Improve student readiness for technical programs

Contacts

- Alamo Area Academies
  - Gene Bowman, Executive Director
    - (210)485-0826
    - obowman@alamo.edu
- Alamo Colleges – NAM Project Contacts
  - Federico Zaragoza, Vice Chancellor
    - Economic and workforce Development
    - (210)485-0015
    - fzaragoza@alamo.edu
  - Danine Tomlin, Industry Cluster Coordinator
    - (210)485-0828
    - dtomlin@alamo.edu

Contacts

- St. Philip's College
  - Maureen Cartledge, Dean Applied Science
    - (210)486-7015
    - mcartledge@alamo.edu
  - Jose Ybarra, Manufacturing Department Chair
    - (210)486-7060
    - jybarra36@alamo.edu

Contacts

- San Antonio Manufacturers Association
  - Rey Chavez, President
    - (210)979-7530
    - reychavez@sama-tx.org
  - Don Kenton, Education Committee Chair
    - (210)215-2001
    - djkenton@satx.rr.com