

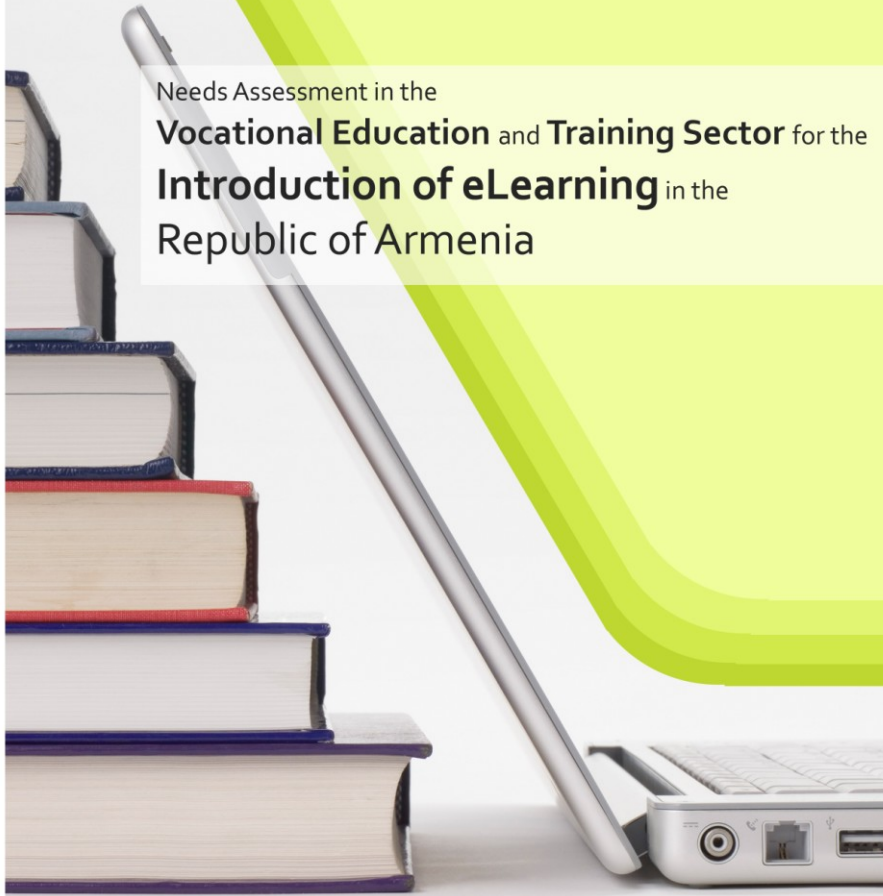


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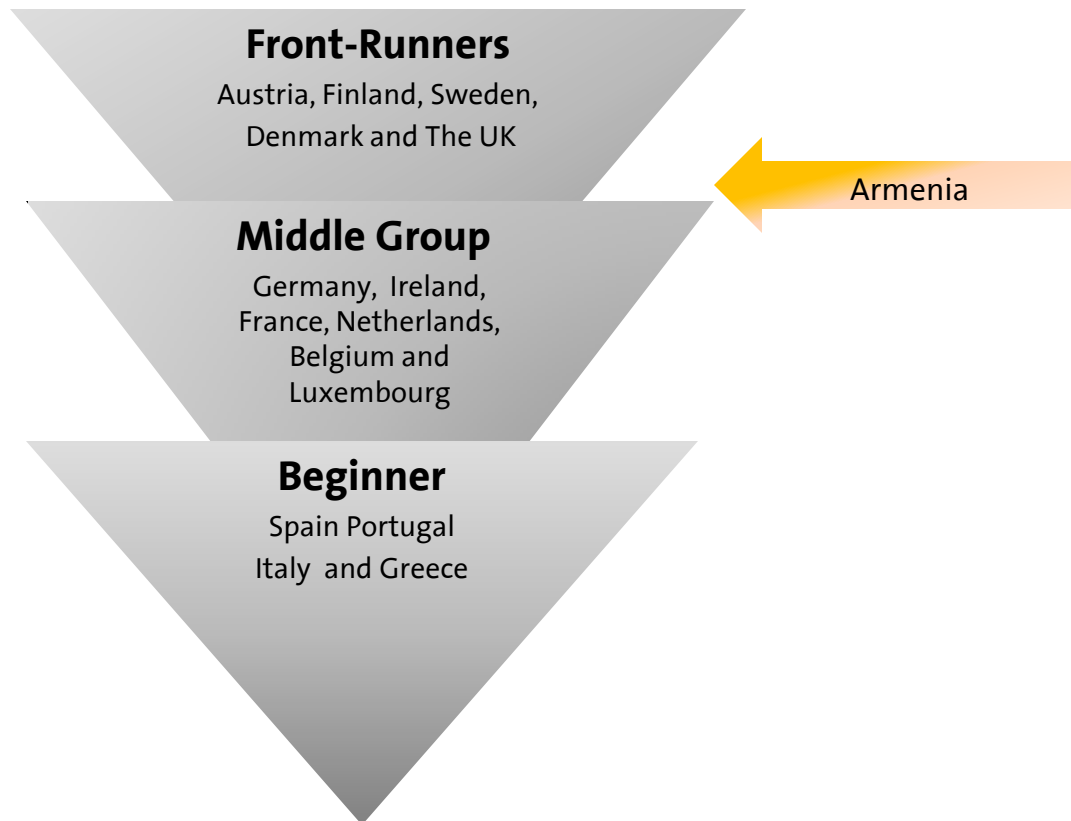
keeping you ahead

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Needs Assessment in the
Vocational Education and Training Sector for the
Introduction of eLearning in the
Republic of Armenia



EU VET eLearning categorization



Agenda

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- Why are we talking about e-learning?
- e-learning in VET
- Needs Assessment: Insights
 - Directors
 - Teachers
 - Students
 - Technology Infrastructure
- Conclusions and Recommendations
- Recommendations on Implementation Path
- Recommendations for Partnerships
- Cost considerations
- Demonstrations

Why e-Learning

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- Makes learning available anywhere, anytime
- Flexibility in learning style and ability
- Makes retention and evaluation of learning easier
- Provides risk-free simulations
- Adds to the consistency and effectiveness of learning material
- Virtual mobility through the use of (e-learning) to be promoted
- Effective Assessment and Tracking of Learning



Is e-learning suitable for VET – Examples

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Becta leading
next generation
learning

- In UK, Becta takes the national lead in supporting the Further education and skills sector to maximize value and transform learning through the effective and creative use of technology.

FAS

- FAS, the Training and Employment authority in Ireland has an e-college that offers a range of interactive, training courses that are self-paced

e tu-modu

- E-TU-Modu in Spain, Netherlands, Germany, Bulgaria, and Slovakia aims to develop E-learning modules to train teachers of vocational education and training as “E-Tutors” and to increase the significance and value of e-learning in VET

Australian Flexible Learning Framework
supporting e-learning opportunities

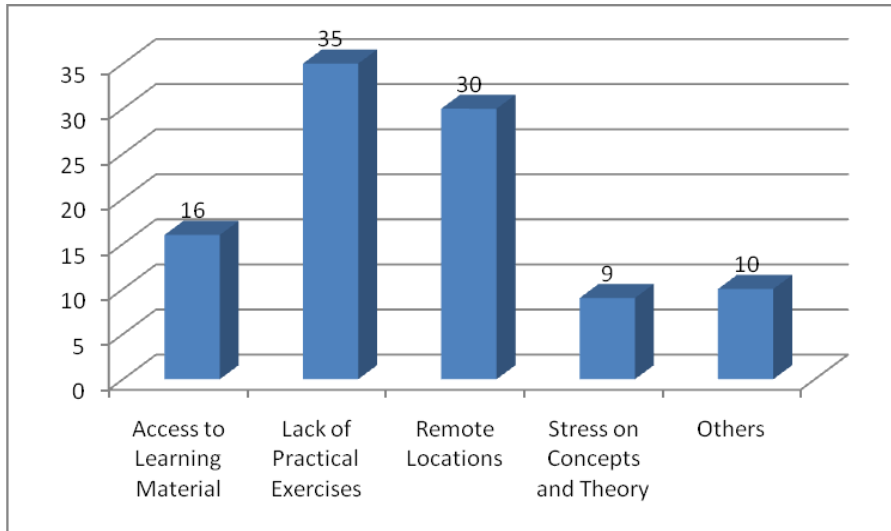
- The Australian Flexible Learning Framework (Framework) provides the VET system with the essential e-learning infrastructure and expertise needed to respond to the challenges of a modern economy and the training needs of Australian businesses and workers



Needs Assessment – Major Findings

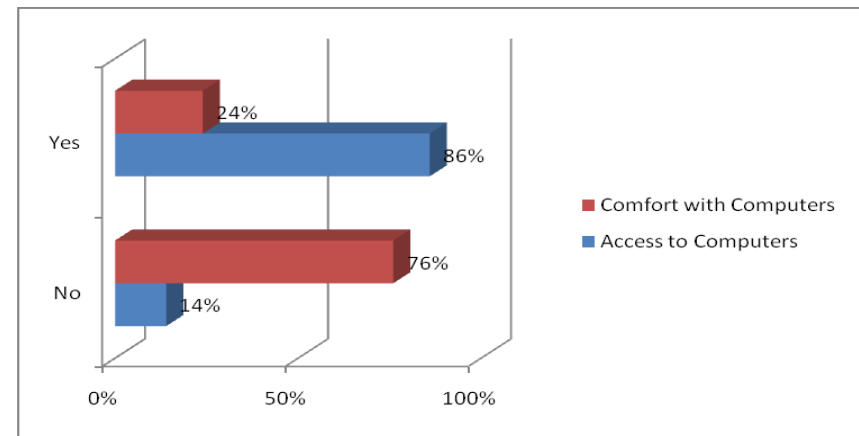
Needs Assessment Insights (Students)

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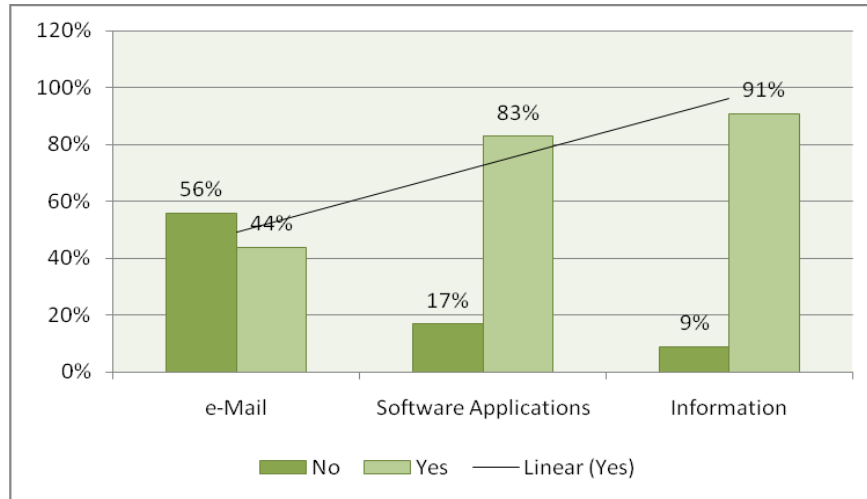
- Lack of practical exercises and Remote locations are seen as major challenges by students in the learning process

- 24% and 86% of students state they are comfortable with a computer and also have access to a computer

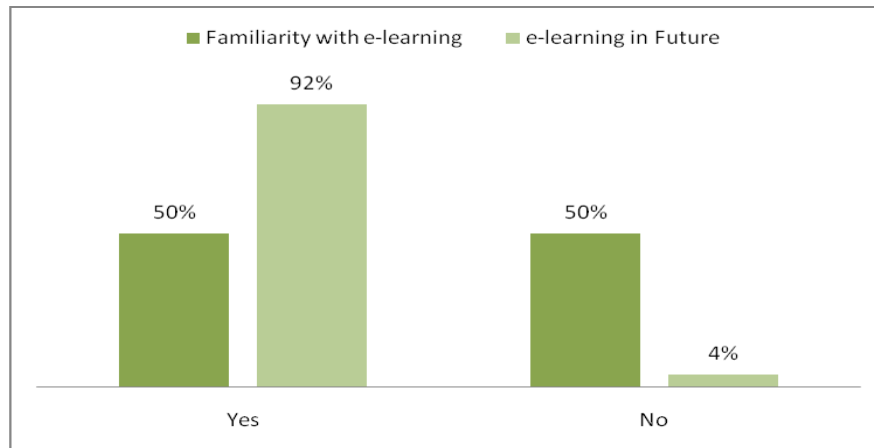


Needs Assessment Insights (Students)

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- A majority of students access the Internet for Information, as against other applications or e-mail

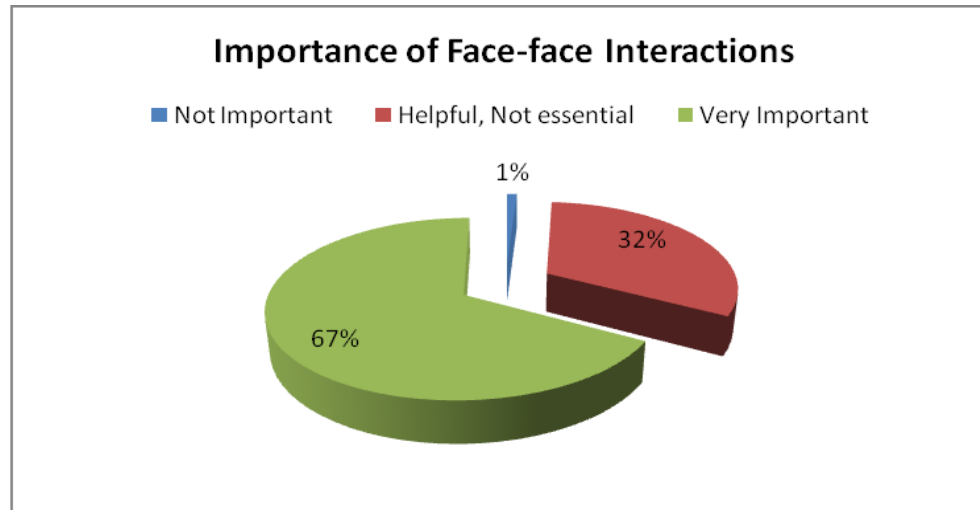


- 50 % of students are aware of / familiar with e-learning

Needs Assessment Insights (Students)

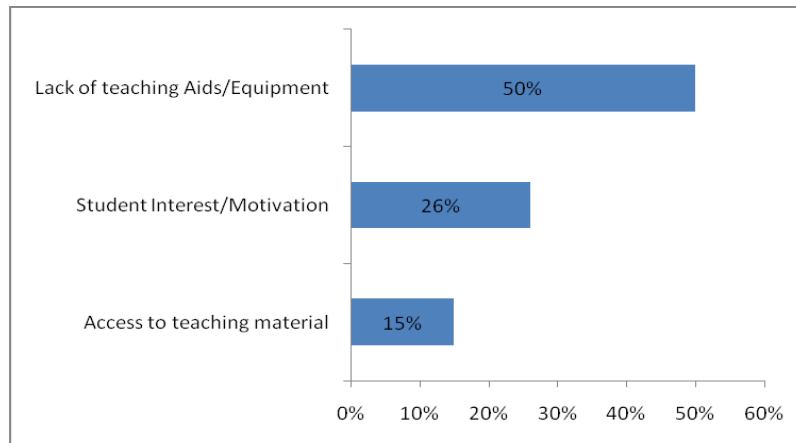


- A high number of students agree that e-learning can be used in most training programs in future
- Most students think face-face interactions are very important indicating that a completely online environment will not be conducive to learning



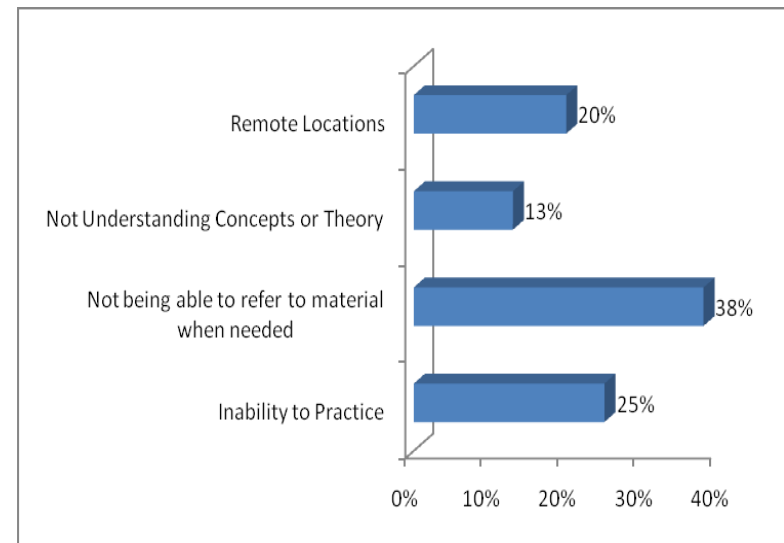
Needs Assessment Insights (Teachers)

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- A majority of teachers felt that lack of teaching aids or equipment was the biggest challenge they faced

- According to teachers, the challenges faced by students are:
 - Not being able to refer to material when needed: 38%
 - Inability to Practice: 25%
 - Remote Locations: 20%

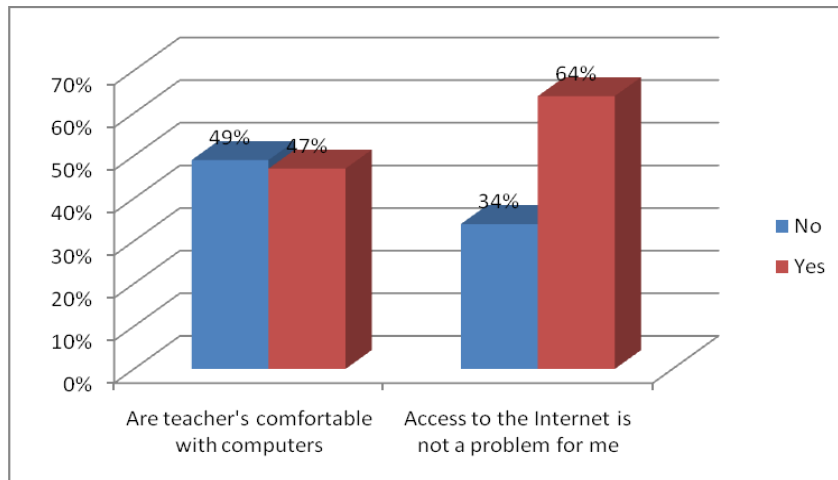
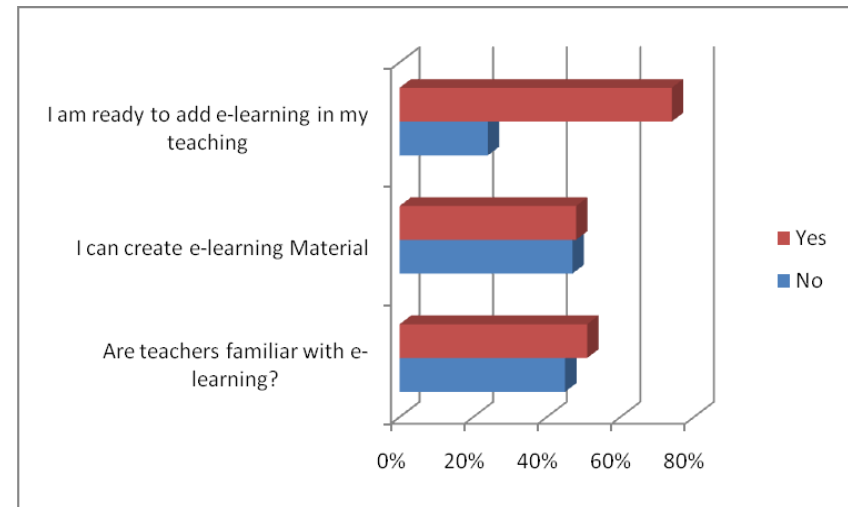


Needs Assessment Insights (Teachers)

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- A majority of teachers felt that they would be able to add e-learning into the teaching process
- However, there was almost a 50% split amongst respondents when it came to the confidence and interest in creating e-learning material and their own familiarity with e-learning.

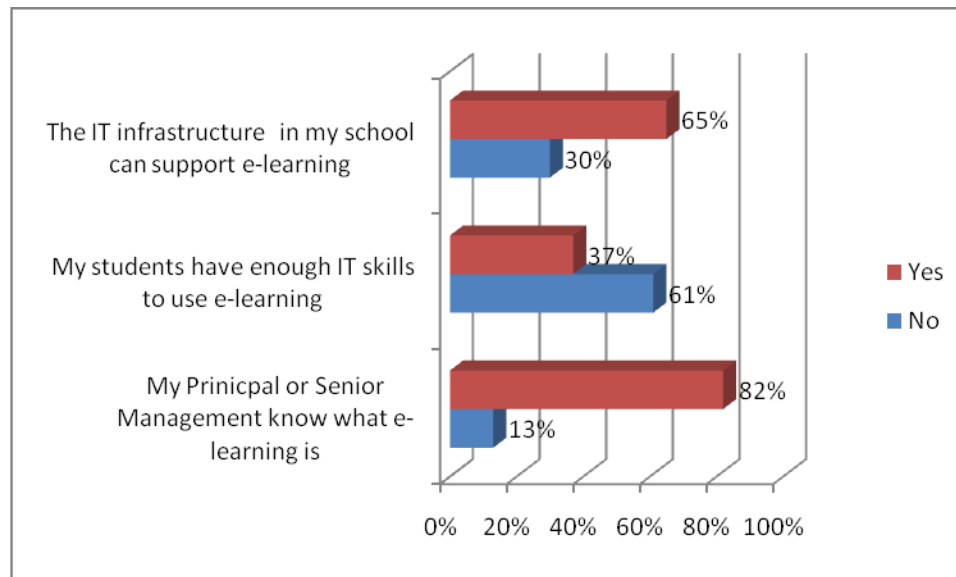


- There is a 50% split amongst respondents about comfort levels with computers though a greater amount of respondents had access to the Internet (64%)

Needs Assessment Insights (Teachers)



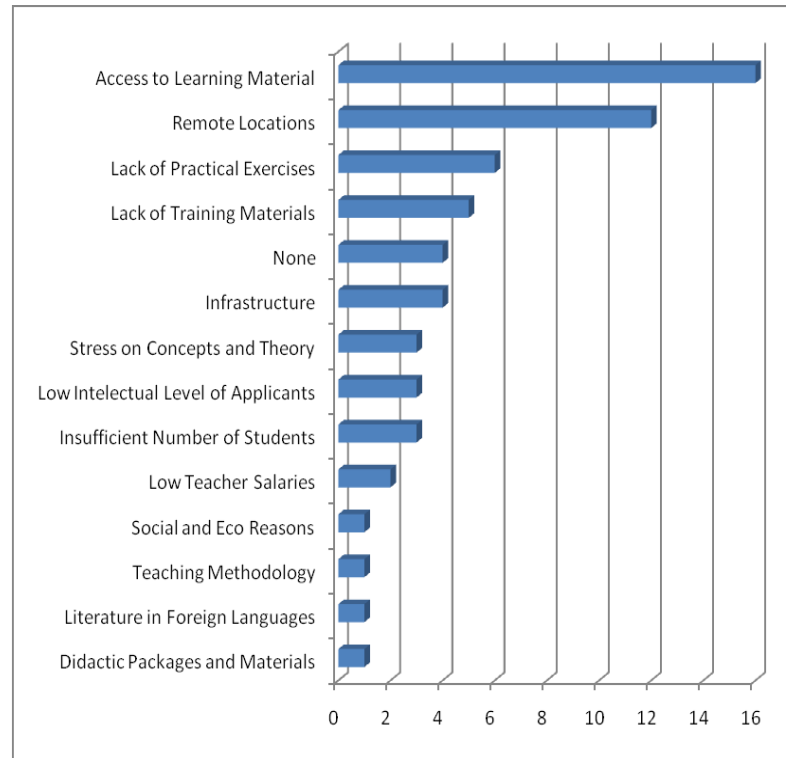
- Though teachers showed confidence in the school's infrastructure, visits to the regions and director responses indicate that external help will be required
- Teachers were not too confident about the IT skills of students



Needs Assessment Insights (Directors)



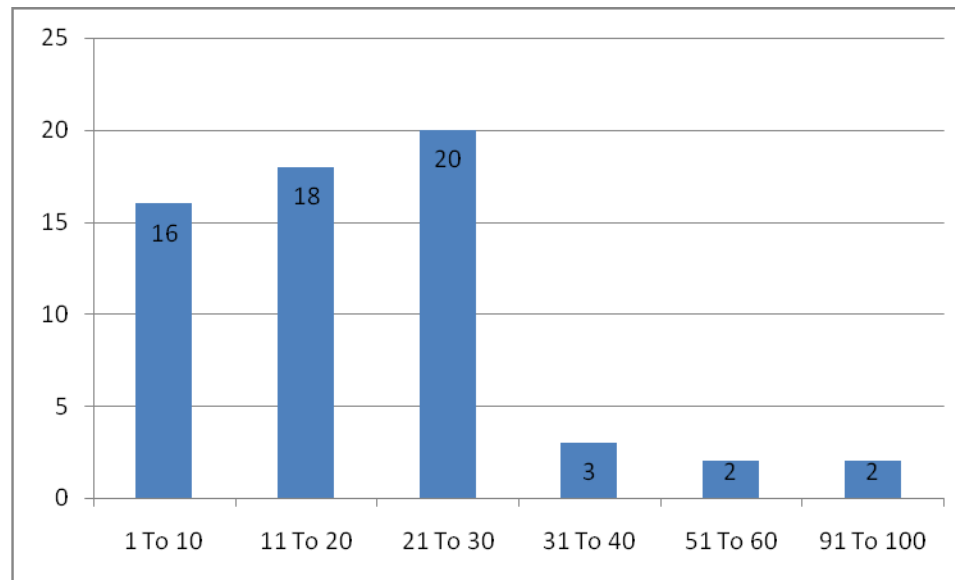
- Challenges outlined by directors are access to learning material and remote locations.



Needs Assessment Insights (Directors)



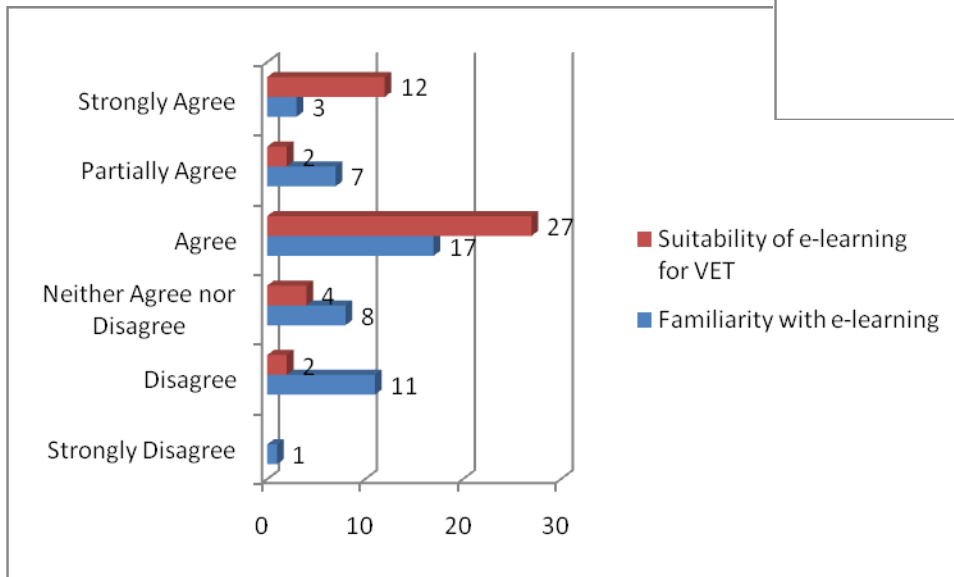
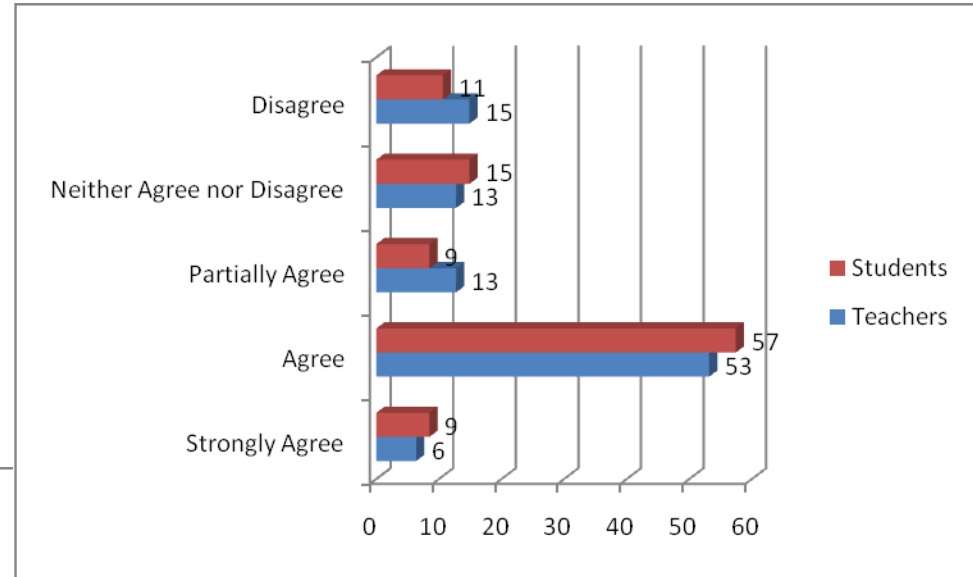
- A majority of the schools have 1 – 30 computers.



Needs Assessment Insights (Directors)



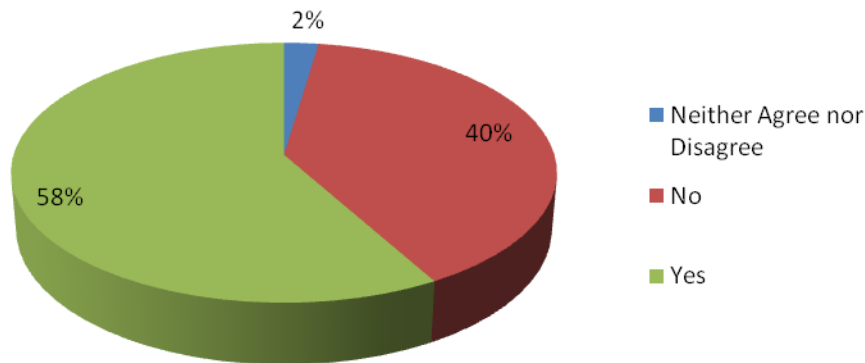
- 57% and 53% agree that teachers and students are comfortable with computers and are familiar with e-learning



- 27% agreed that e-learning could be suitable for learning processes in VET

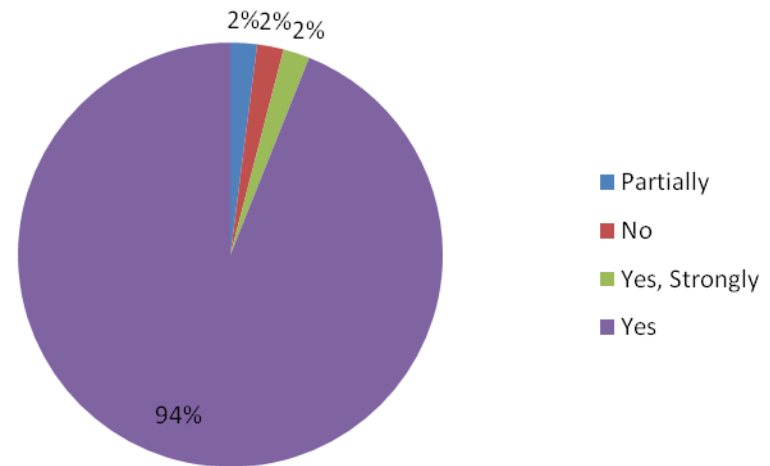
Needs Assessment Insights (Directors)

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- A majority agreed that the infrastructure in their schools could support e-learning

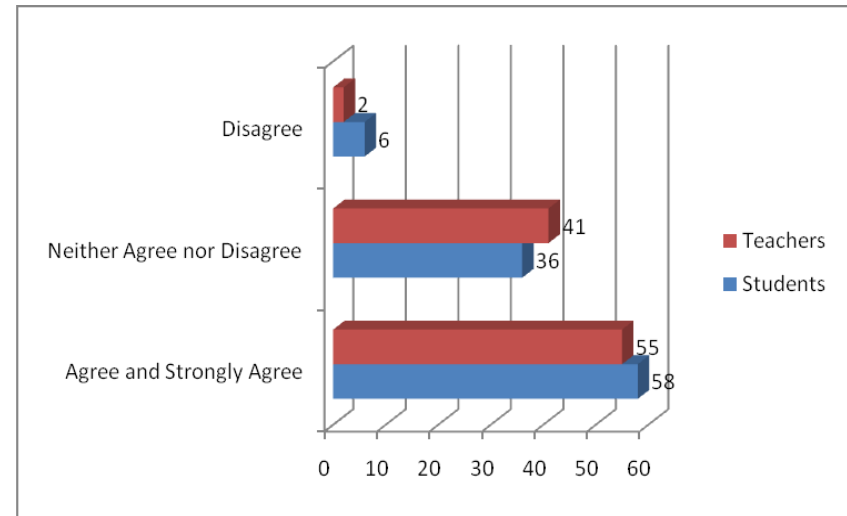
- Directors strongly feel that that the school will need external help to create and deploy e-learning



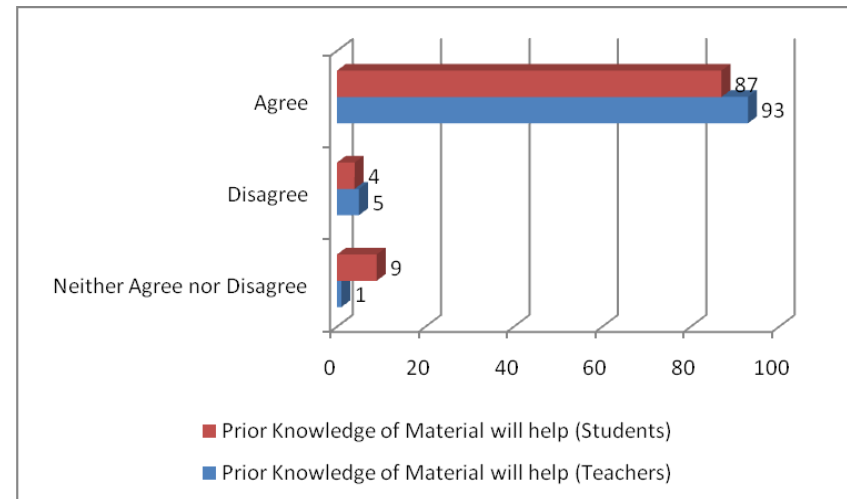
Needs Assessment Insights (Combined)



- 55% Teachers and 58% Students felt that their abilities to learn will improve with e-learning.



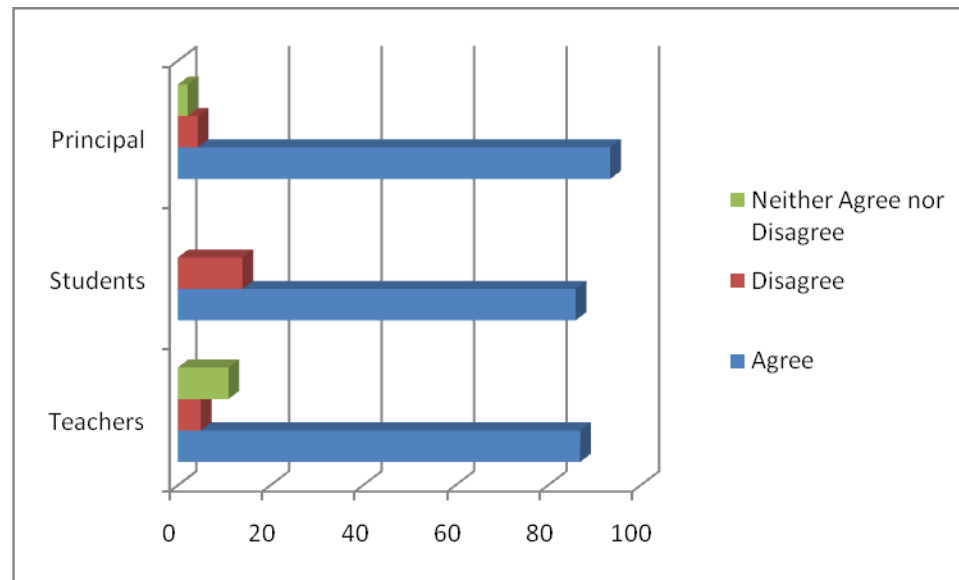
- 87% Teachers and 93% Students felt that prior knowledge of what they were going to learn will help.



Needs Assessment Insights (Combined)



- Directors, Teachers, and Students agree that collaboration will be helpful.



Needs Assessment Insights (Technology Infrastructure)

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- According to a Labour Research survey, 31% of 1000 families interviewed had access to the Internet
- 65% of families accessed internet from their home computers
- Internet users number about 191,000 which indicates an internet penetration of 6.4%.

Needs Assessment Insights (Technology Infrastructure)



- IT Industry's 10 Year growth plan:

Industry Growth Target Indicators	2006	2018
Home Computer Penetration	20%	70%
Educational Computer Penetration	10%	100%
Public Sector Computer Penetration	10%	100%
Population Internet Penetration (Physical, Financial, Content, and Language Access)	15%	90%

Major Conclusions

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- Understanding of e-learning
- Political and Social Will
- Acceptance of e-learning
- Student Motivation
- Regional Disparity
- Need for Collaboration
- Teacher Training
- Content Development Need

Major Recommendations

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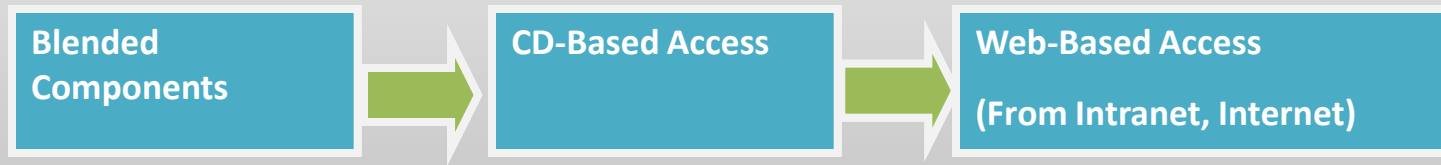


- E-Learning based on subject
- Animations/Videos as Classroom Aid
- Blended Learning Curriculums
- Simulations or Games
- E-Learning as a Reference Tool
- Collaboration
- Teacher Training

Major Recommendations

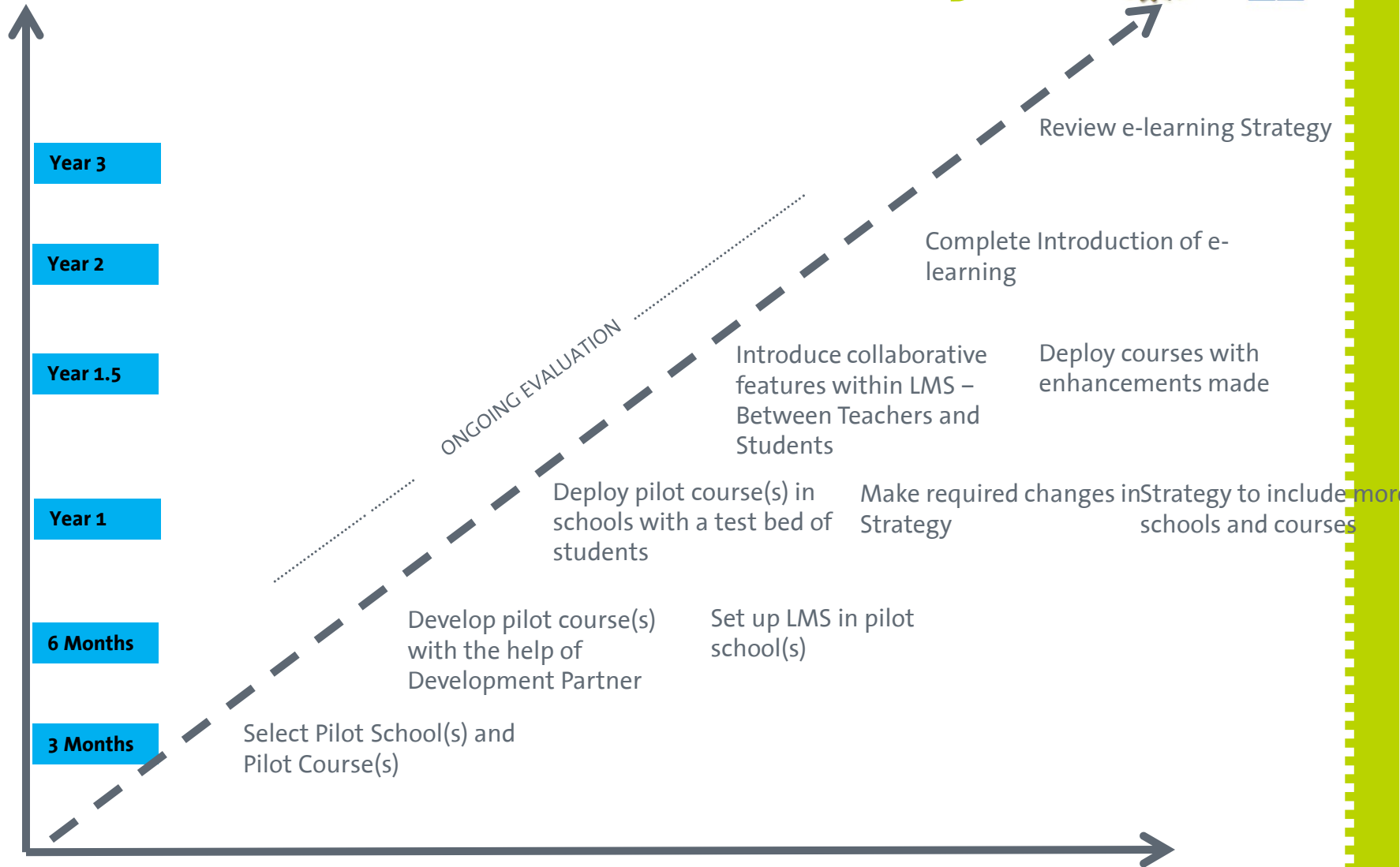


- Learning for Disabled and Underprivileged
- Life-long Learning
- Leveraging Social Partners
- Short-term Programs
- Partnerships
- Competencies, Qualification Framework, Labor Market Needs
- Policy Framework for Action

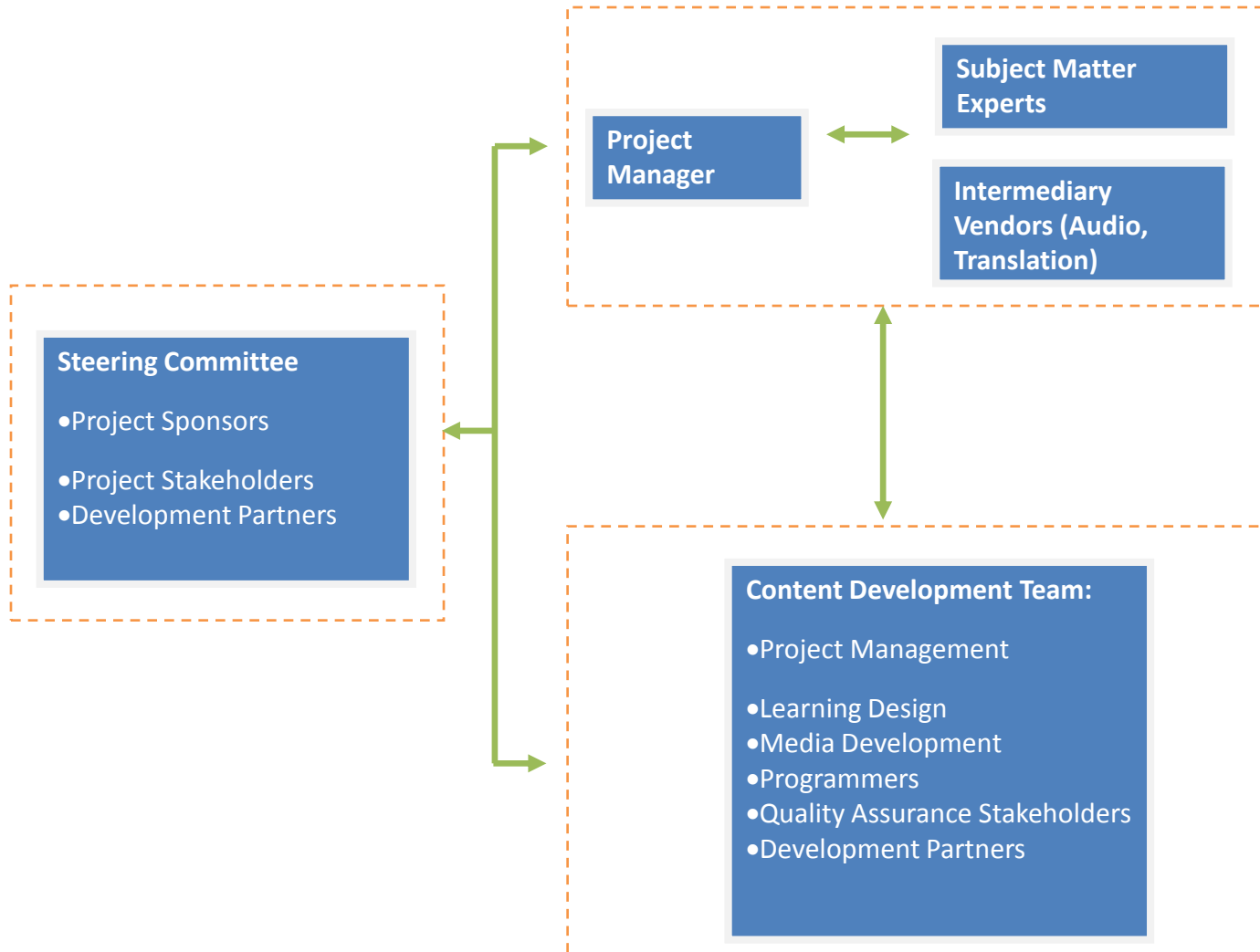


Recommendation for Implementation Path

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Recommendation for Partnerships



Cost Considerations

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- Implementing an LMS
 - SAAS versus On Premise

- Content Development
 - Complexity
 - Use of Multimedia
 - Subject Matter Expertise



Recommendation for Rollout Plans

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Revise and Refine



Enhanced Production Setup



Unit Production Setup



Process Setup



Team Setup



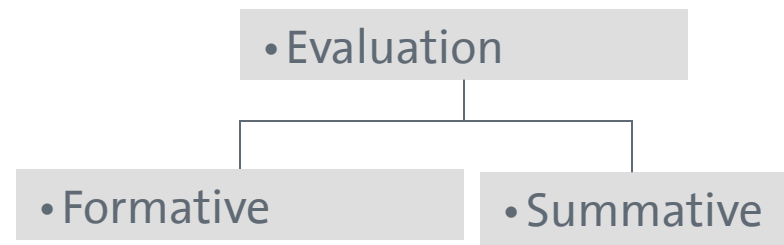
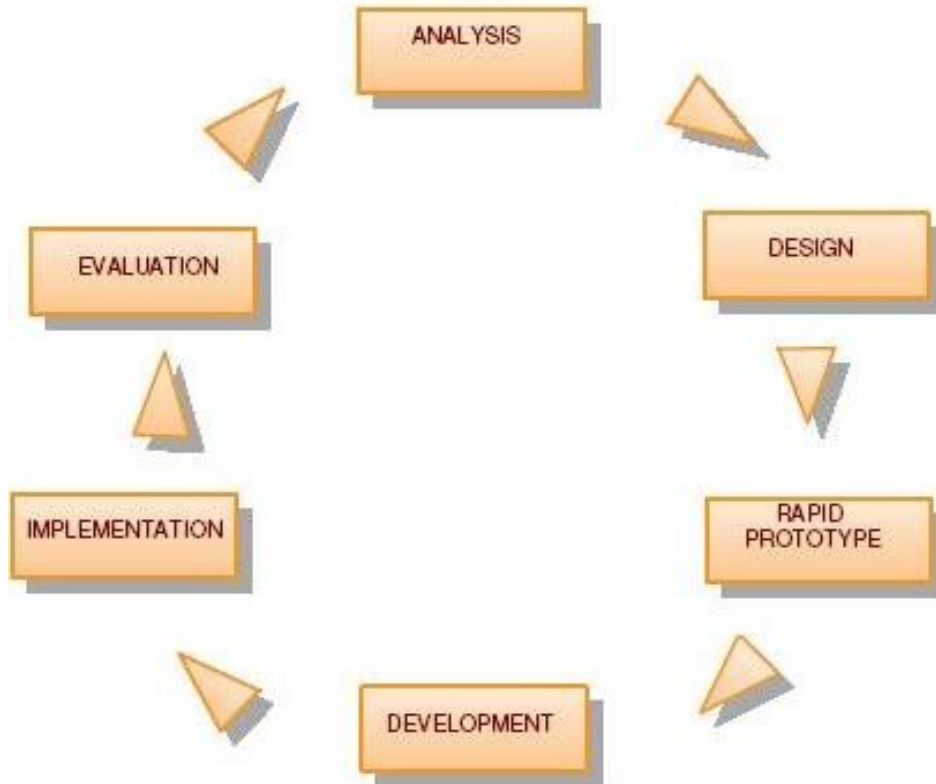
Recommendations on Engagement Models



Development Model	Activities	Recommended Scenario
End-end Offshore	Offshore work analysis	Clear Scope of work
	Offshore Design and Content Development and Delivery	Well established and ongoing projects relationship
Offshore/Remote-Onsite	Onsite work analysis and design	Long term project engagement
	Offshore/Remote content development and delivery	Onsite scope of work definition
Subject Matter Experts	External SME content and expertise	External SME expertise
	Course Design onsite/offshore	Course designed by SMEs
	Offshore content development and delivery	

Individual Development Plan

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Demonstrations – A VET Example

Food Processing

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FOOD PROCESSING Help Close

Examination of Confectionery Made of Flour Search

Importance of the Examination of Flour Confectionery Course Map

As a quality expert, your responsibility is to closely examine the purity and freshness of the ingredients used in production.

Animation paused. Click Play to resume 00:18 / 00:41 Page 3 of 14

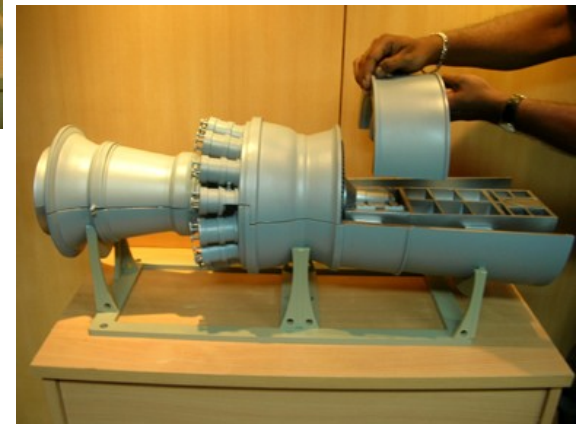
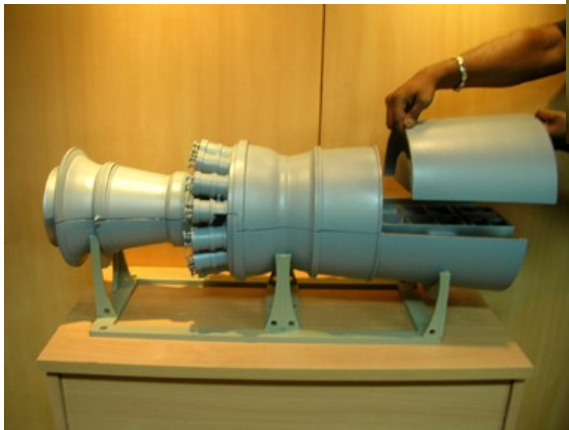
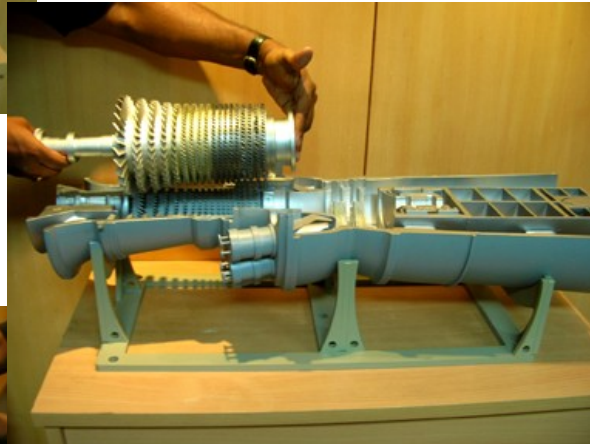
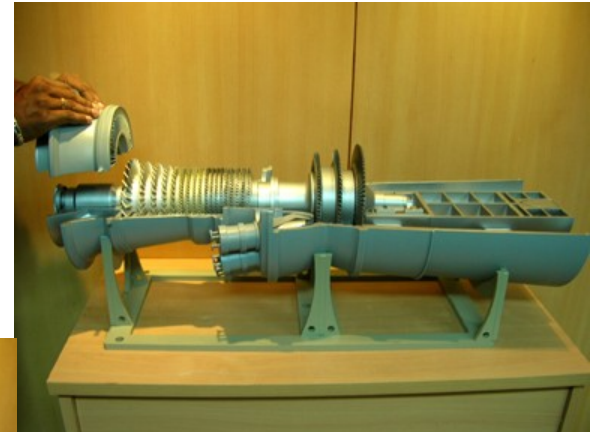
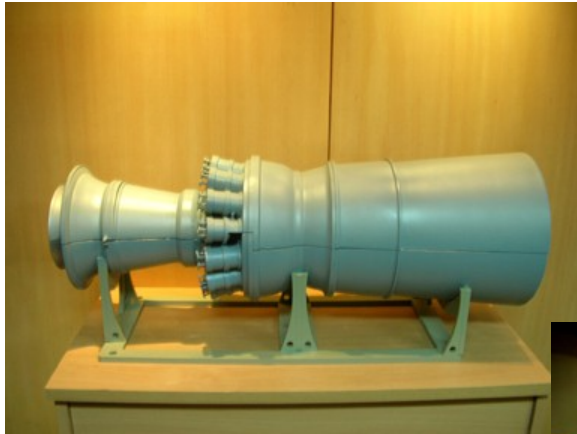
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Demonstrations – Other Relevant Examples

Physical Models for Classrooms

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Machinery Simulation

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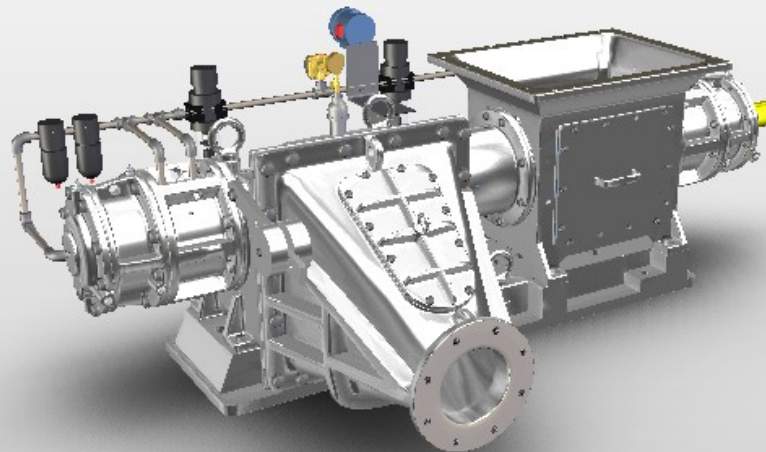


FLSMIDTH Overview of FK Pump

Self running mode >> Disassembly-Assembly

- Components
 - Key Components
 - Disassembled View of an FK Pump
 - Explore an FK Pump
 - Explore an FK Pump (contd.)
 - Build an FK Pump
 - Operating Principle
 - Principle of Operation
 - Activity
 - Summary
 - Explore mode
 - ✓ Explode
 - ✓ Highlight
 - ✓ Transparent
 - Self running mode
 - Operation
 - ✓ Disassembly-Assembly

Click on the button below to observe the disassembly sequence of the FK Pump.



Behavioral Skills

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Leading Simple | Playing Favorites - Scene 2

TRW

Menu

25%

Show Audio Text

Animation paused. Click Play to resume.

Page 1 of 2

Installation Simulation



Requirement Analysis Review

Instructions

1. Select the required safety equipment from the appropriate tab.
2. Select the required electrical meter(s) from the Tools tab. They appear in the Your Selection list box.
3. Select any view of the house from the Views tab.
4. Select the appropriate electrical meter from the Your Selection list box. The meter gets attached to the mouse pointer.

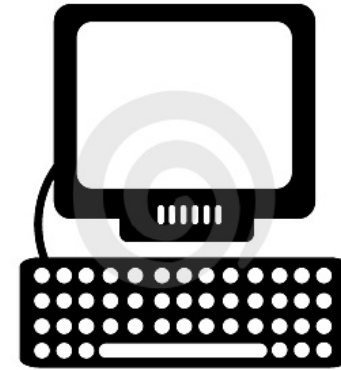
Tools Views Safety Job Aids Clipboard Ask the Expert Calculator Notes

Your Selection Level 1 2 3 4 Hint

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Mobile Learning

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Thank You!