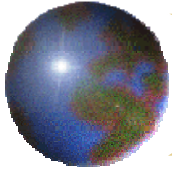


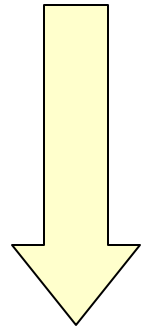
*The Blended Approach: Computer
Assisted & Traditional Language
Learning in Aviation English
Training*

Presented by:

*Finian Connolly & Mick McDonnell
Edgewater College*

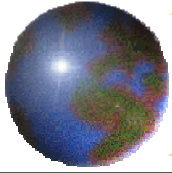


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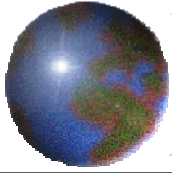
**The
Company**





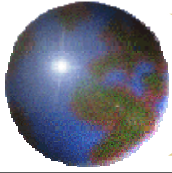
Sections

- The Blended Approach
- The History of CALL
- Building for the future
- The Blended Approach in a Commercial Aviation Situation



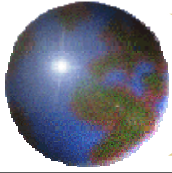
Blended Learning

- Familiar to English Language Trainers
- Describes all manner of training situations
- Including face to face instruction combined with computerised learning



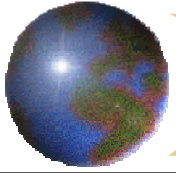
Blended Learning

- For a more definitive definition for the aviation industry you need to consider
 - Which approach to language teaching to use
 - The ratio of classroom to computer instruction



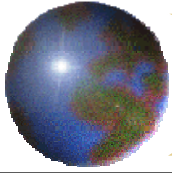
Approach to second language learning

- Need to consider the constituent parts of the approach
- The solution must have clear position on:
 - Nature of language
 - Language learning
 - How incorporated in the media
- Balance between computerised learning and face to face
- Factors include:
 - Financial cost
 - Downtime
- **IMPORTANT** – language acquisition must not be effective negatively by weighing towards CALL



The Blended Approach for Aviation English

“The Blended learning approach for aviation English combines computer-mediated instruction with face-to-face instruction within a complimentary theoretical and pedagogic framework without negatively affecting language acquisition rates.”



Computer Assisted Language Learning

WELL Web Enhanced Language Learning

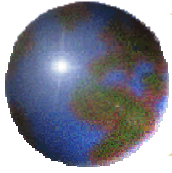
CELL Computer Enhanced Language Learning

CALL Computer Assisted Language Learning

CAI Computer Assisted Instruction

TELL Technology Enhanced Language Learning

ICALL Intelligent Computer Assisted Language Learning

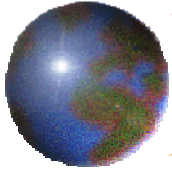


Early CALL

Behaviourism

Audiolingual method

PLATO (Programmed Logic for
Automatic Teaching Operations)



Behaviourism

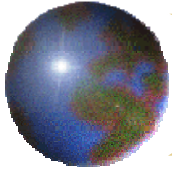


"If we wish a cow to write dramatic criticism we must fill the cow full of drama."

B.F. Skinner

Verbal Behaviour
(1957)

Operant Conditioning



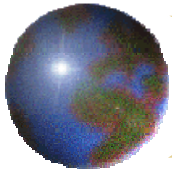
Audiolingual Method



1960s and 1970s

- Concentration on grammar
- Concentration on discrete point activities

Drill and Kill



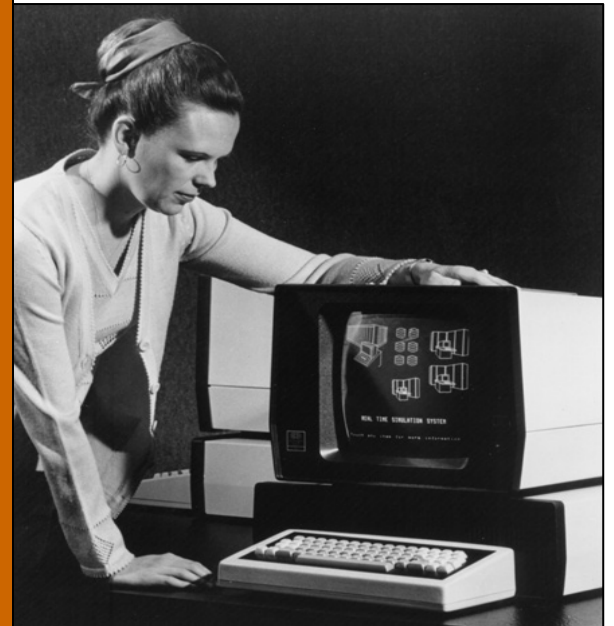
Mainframes

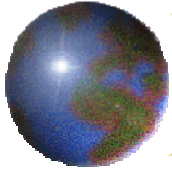


Expensive

Large Organisations

Time Limited





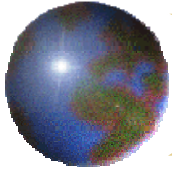
Plato



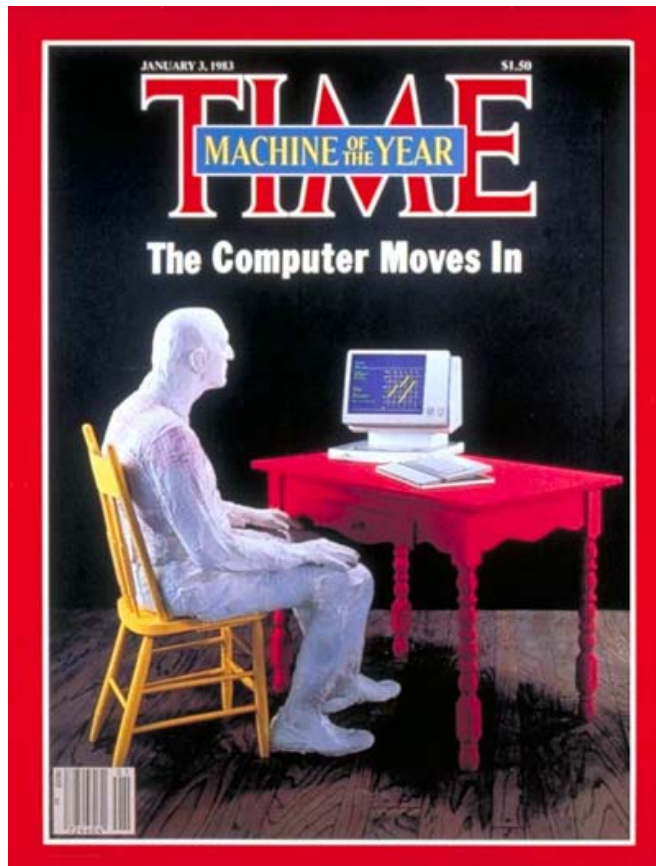
COST-Prohibitive

AVAILABILITY-Limited

PEDAGOGY-Behaviouristic

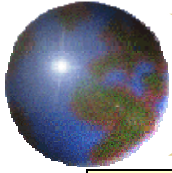


The PC + The Communicative Method



New Technology

New Methodology

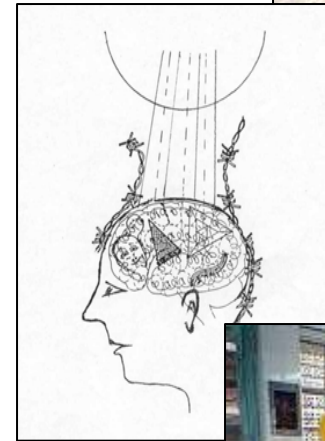
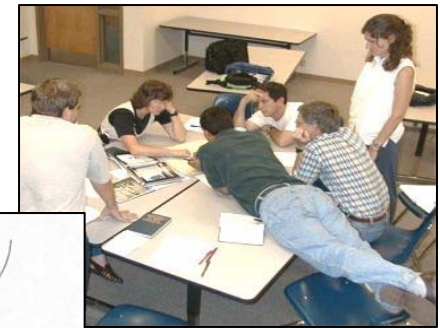


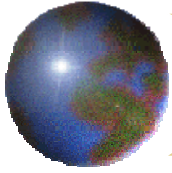
Communicative Method

Task-based approach

The Natural Approach

Multi-syllabus approach





The New CALL



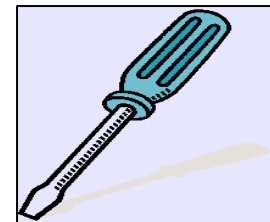
Computer as tutor

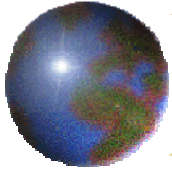
Computer as stimulus



Computer as workhorse

Computer as tool

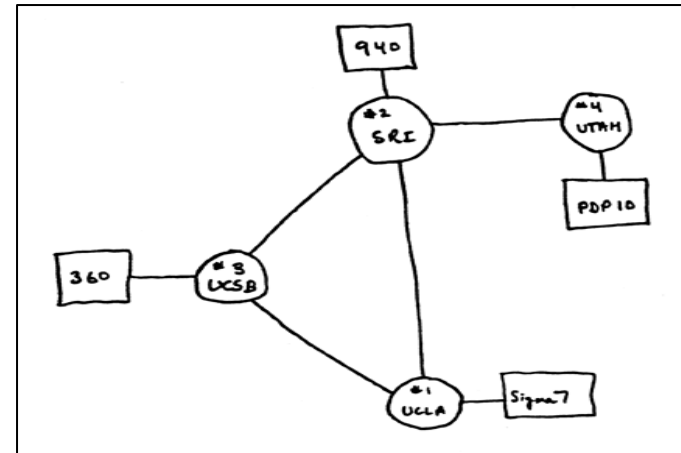




The CD/Internet revolution



+

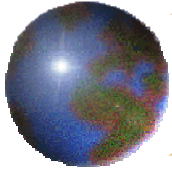


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MULTIMEDIA

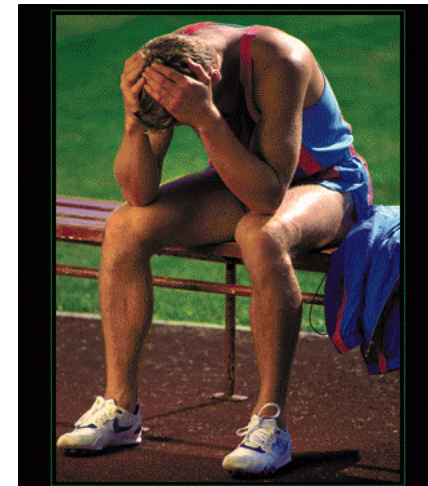


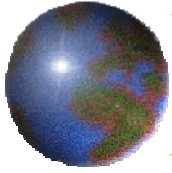
A Success or Failure?

Focus on the marginal

Ad hoc and disconnected use

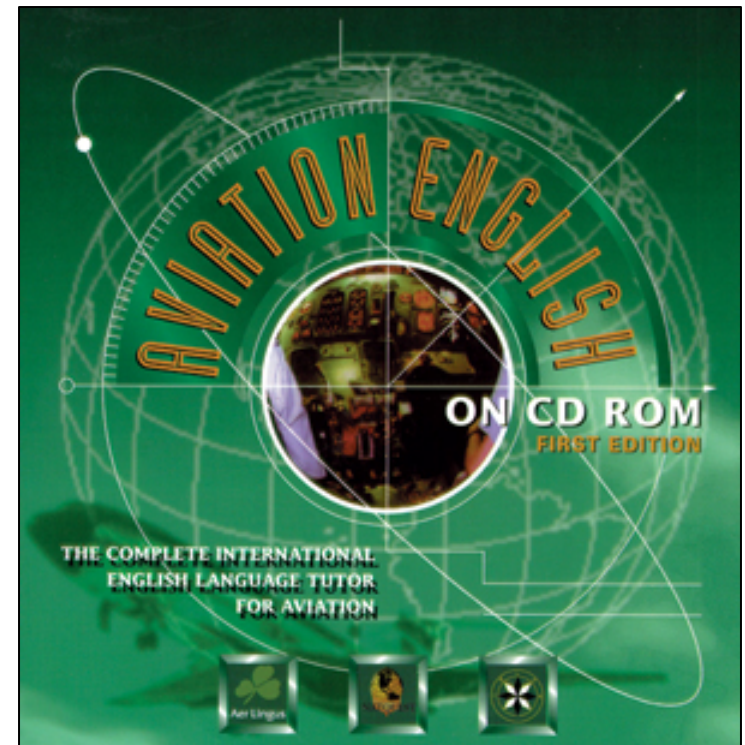
Compartmentalised skills instruction

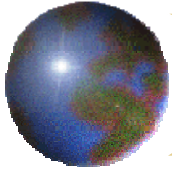




EPTI's/Edgewater College's Aviation English on CD Rom

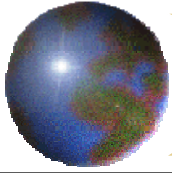
- Lack of any discernable pedagogic validity
- Overuse of test
- The un-grading of language
- The overuse of glossed items
- Lack of comprehensive audio input
- Overall textbook nature of the product without language specific exercises





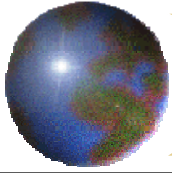
Why is there still a problem?

- Quality of software
- Theory of Language acquisition



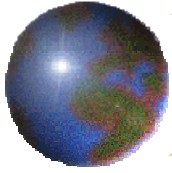
Rebuilding for the future

- Need for collaboration
- Edgewater College – education provider
- Examine the current CALL systems based on the following criteria:
 - Not textbook
 - Need for strong theoretical position on nature of language
 - Need for strong position on nature of language learning



Collaboration with DynEd

- System found meeting this criteria
- DynEd in the U.S
- President – Lance Knowles
- Developed recursive hierarchical recognition system
- System based on how the human brain employs a hierarchical memory structure

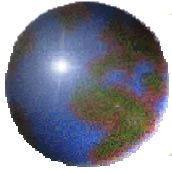


A Dynamic approach to English fluency

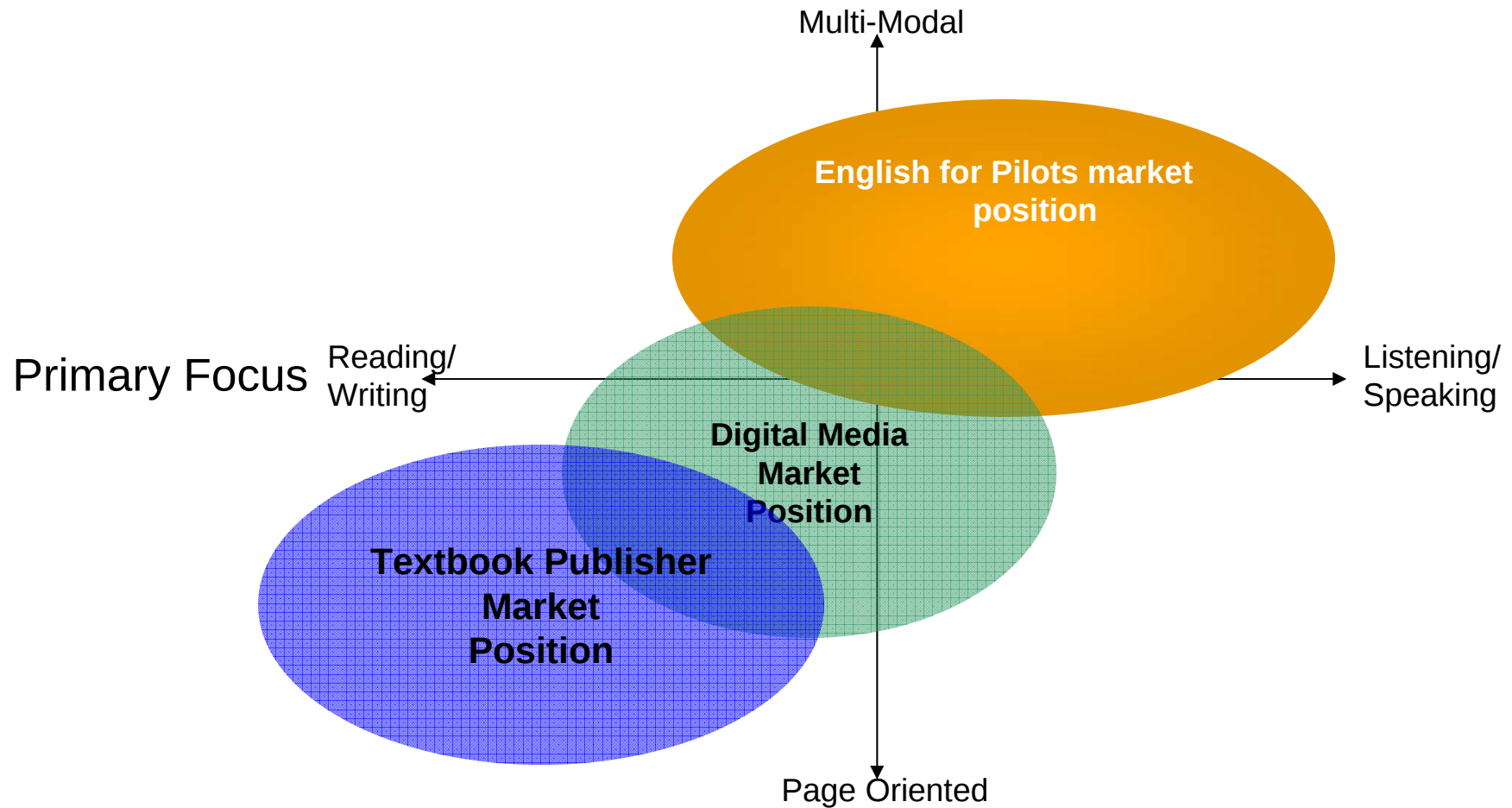
- Multi-modal design-breakthrough paradigm
- Neuroscience basis-pattern recognition procedural memory
- Unique approach cuts time to oral fluency

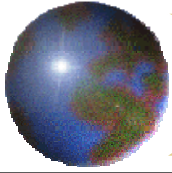
Neurons that fire
together, wire together!

Oral fluency facilitates all
other language skills.



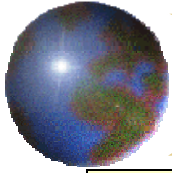
Approach





Collaboration

- Edgewater College lent its aviation expertise and technical knowledge to this system to develop a new Aviation English programme
- Edgewater College developed its own aviation classroom programme for the blended approach



Blended Approach

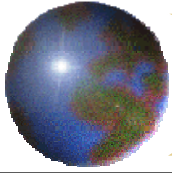
multimedia computer provides

- optimal input
- practice activities



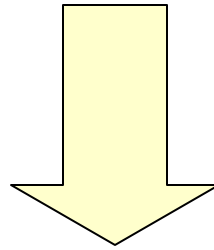
classroom provides the human element where the language models come to life and are extended in a social context



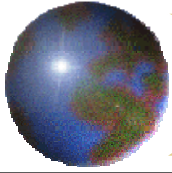


Case Study

- How classroom learning and CALL can be blended for an aviation organisation

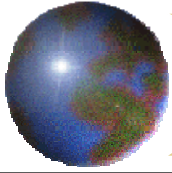


AIR ASTANA



Case Study Cont'd

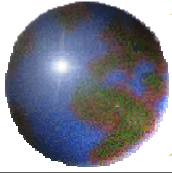
- Initial programme for those identified at level 1
- Classroom interaction based on scope and sequence of language within the CALL course
- Designed to progress them to level two



Creation of Classroom Programme

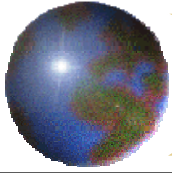
● The creation of a classroom programme required:

- Needs analysis
- Situation analysis
- Planning goals and learning outcomes
- Course planning and syllabus design



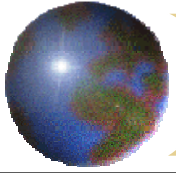
Needs Analysis

- Heavily guided by “Manual on the Implementation of ICAO Language Proficiency Requirements”
- The group was monolingualistic
- Daily use of English due to routes of aircraft being specific
- Attitude of management very positive
- Required:
 - Assessment of Language ability
 - Assessment of mandatory language tuition
 - Availability of computers
 - Existing processes in place for language learning



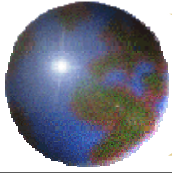
Needs Analysis - Assessment

- Computer adaptive test used
- Test under taken in a computer laboratory – closed environment
- 10 pilots at a time
- Scheduling done in cooperation with Flight Operations
- Test anchored with a sample using a pen and paper test
- Meetings held with Chief Pilots to assess attitudes to English learning
- Response enthusiastic and eager
- Aviation industry at ease with assessments
- Previous language courses – little information available



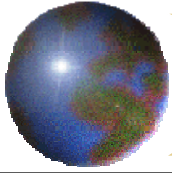
Situation Analysis

- Again covered in “Manual on the Implementation of ICAO Language Proficiency Requirements”
- Main concern being grounded if level not reached by 2008
- Pedagogical history of the students – teacher centred approach
- Possible negative reaction to learner centred approach
- Dealt with by consultation with Management and Chief Pilots
- Textbook selection correlated well with scope and sequence of CALL course



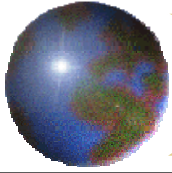
Planning goals and learning outcomes

- Structure of the course provides inbuilt goals
- Time set for advancement from one level to another – 3 month period
- Within this time frame smaller fortnightly goals are set
- Progress on CALL programme measure by:
 - ▣ Use of speech recognition
 - ▣ Playback of voice
 - ▣ Use of text
 - ▣ Comprehension score
 - ▣ Mastery test score
 - ▣ Completion time
- Classroom assessment includes:
 - ▣ Teacher assesment
 - ▣ Academic progress
 - ▣ Attendance
 - ▣ Time keeping
 - ▣ Work completion rate



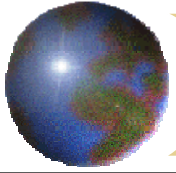
Course Planning & Syllabus Design

- Difficulties dictated by:
 - Theoretical underpinning of the CALL programme
 - Low boredom thresholds associated with computer instruction
 - High drop out rates
 - Lack of interaction with native speakers
 - Lack of monitoring within the CALL system
- Some surveys show as little as 30% complete CALL programmes



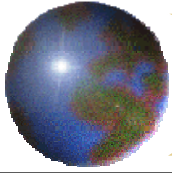
Edgewater College Blended Approach

- Deals with these issues
- The pedagogical underpinning of the CALL system place it outside a neutral framework
- Does not require online access all the time
- The DynEd Records Manger System provides learner with instant feedback
- The DynEd Records Manager System provides administrators with instant feedback
- Course material is presented in a non-linear fashion
- Repetition is avoided by use of complementary activities
- Interaction with the tutor is designed to be frequent
- This avoids the learner having to be self-paced and self-directed



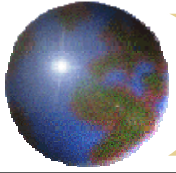
Edgewater College Blended Approach

- General English classes designed to give experienced EFL teachers autonomy over the methodology use
- However scope & sequence of the language are set by the CALL programme
- To motivate learner & keep them focused, aviation specific English was included
- This helped further personalise the language
- To give validity to this - these classes are delivered by former pilots who are trained in EFL
- Gives students time to practice aviation English and interact with Subject Matter Experts (SME)



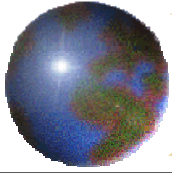
Subject Matter Experts (SME)

- Careful consideration given to this
- Use of SME – twofold
 - Help design language lessons with an authentic aviation context
 - Provide an interface for the learners with native speaking peers
- Interaction with SMEs carefully spaced
- Intervals of four weeks
- Reason – increases motivation in general English classes which precede and follow
- SME lessons designed to provide communicative framework for the instruction of standard phraseology
- Our belief is standard phraseology is imparted to the student by those who have used it in a real setting



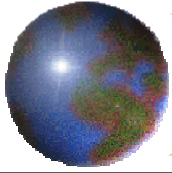
Subject Matter Experts (SME) Cont'd

- SME classes designed by pilots and English professionals
- They provide further extension of the general English
- They have heavy emphasis on aviation specific English
- Example - students asked to note information from a ATIS and required to reformulate it into a PA announcement using language they have acquired in the CALL programme



Conclusion

- Early results indicate it has been adopted well
- Indicated also the logical approach to take
- Confidentiality prevents further exploration of data to date
- Thank you to management and staff of Air Astana for allowing information to be used



Thank You!

