

The Fast and the Curious: Streamlining the Development of a New Mainframe Generation

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Session Number 7209



SHARE in Boston



Michal Cizek – My Own Story

- M.S. in computer science – 2006
 - No mainframe experience in 2006
- Training in company
 - Mainframe basic training for new joiners – summer 2007
 - Product training (mainframe navigational DBMS) – fall 2007
 - Mentored by a senior programmer
 - Self learning, Instructor led training

Your Agenda

- Learning methods and learning plan
- Trainees' perspective
- Cooperation with universities

Learning Methods

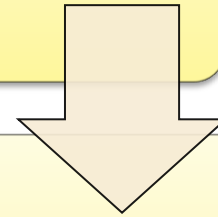
- Mentoring
- Instructor led courses
- Web based training
- Reading documentation



Creating Learning Plan – Natural Approach

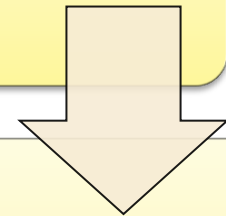
Mainframe basic training

- Introduction to mainframe



Product specific training

- Introduction to product
- Basic product training



Ongoing education

- Advanced product training
- Technical skills
- Corporate skills

Creating Learning Plan – Refined Approach

Hiring, Pre-test

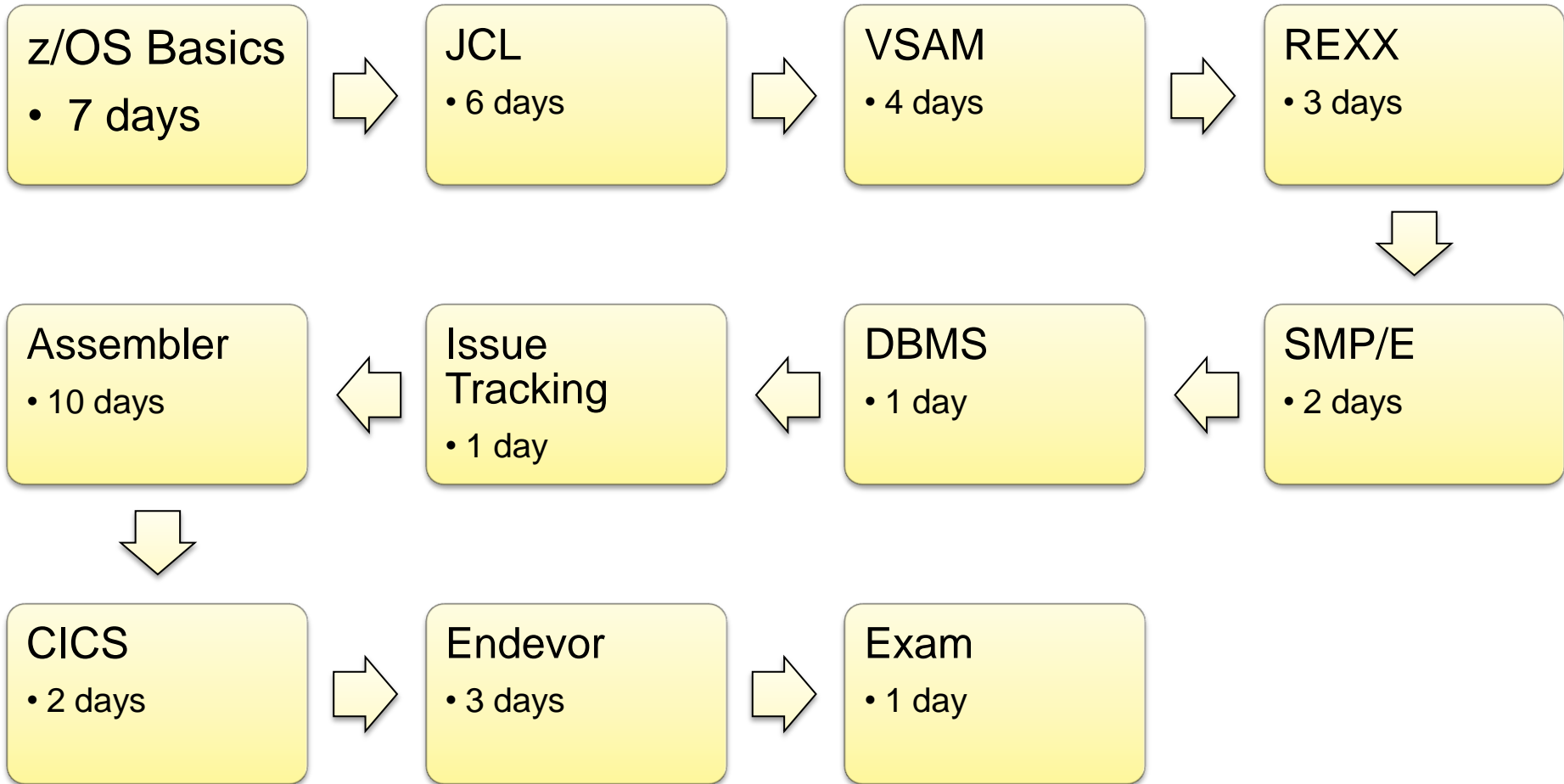
Mainframe Basic Training – Role Based

- Developer, Tester, Support, Sysprogs

Ongoing Education – Product Specific Training

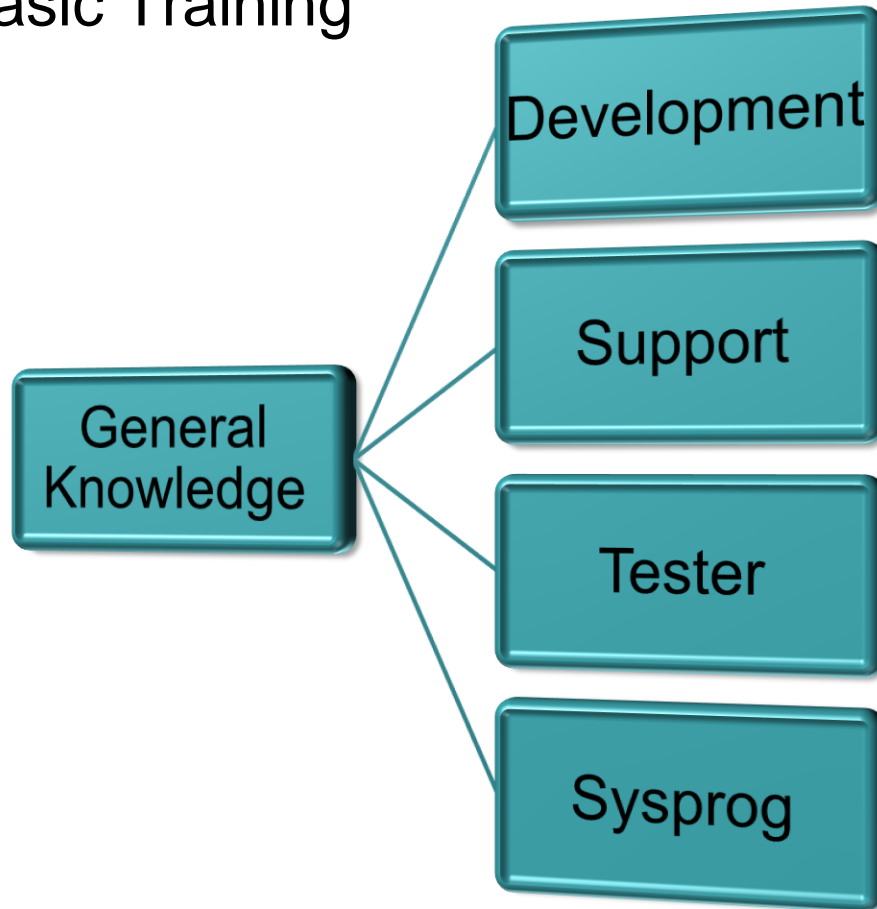
- Dedicated mentor

Mainframe Basic Training – 40 days

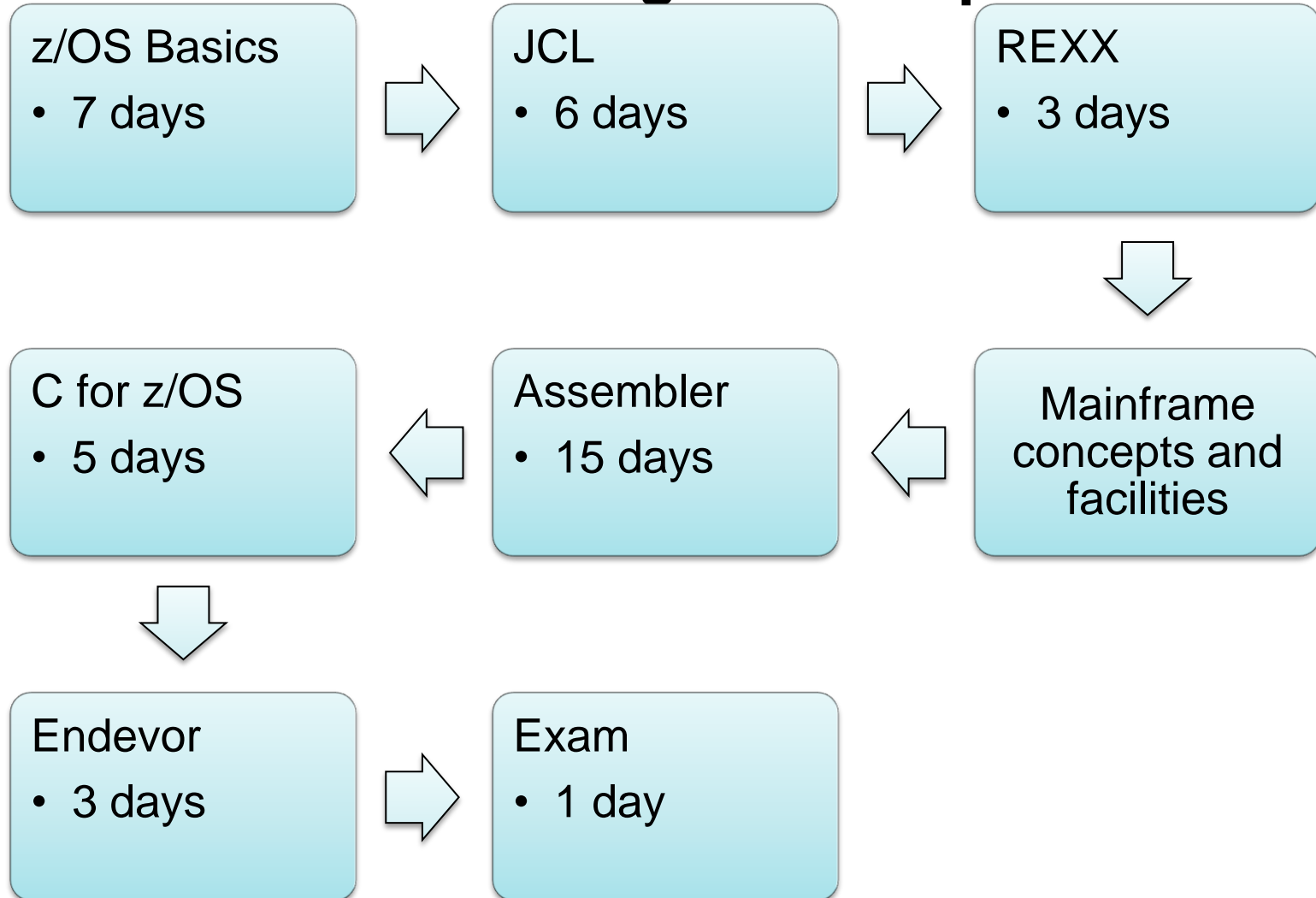


Creating Learning Plan – Refined Approach cont.

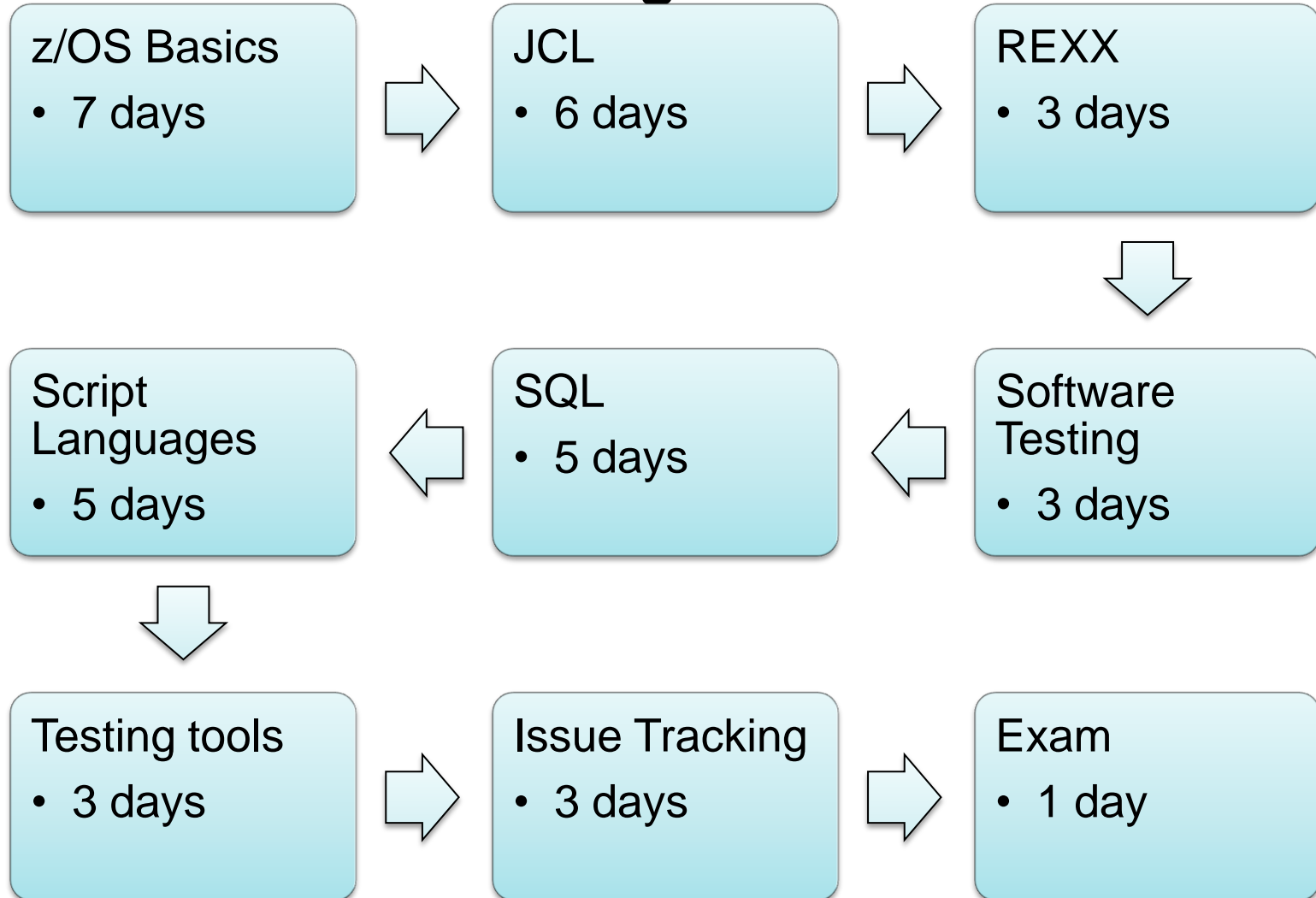
- Mainframe Basic Training



Mainframe Basic Training – Developer



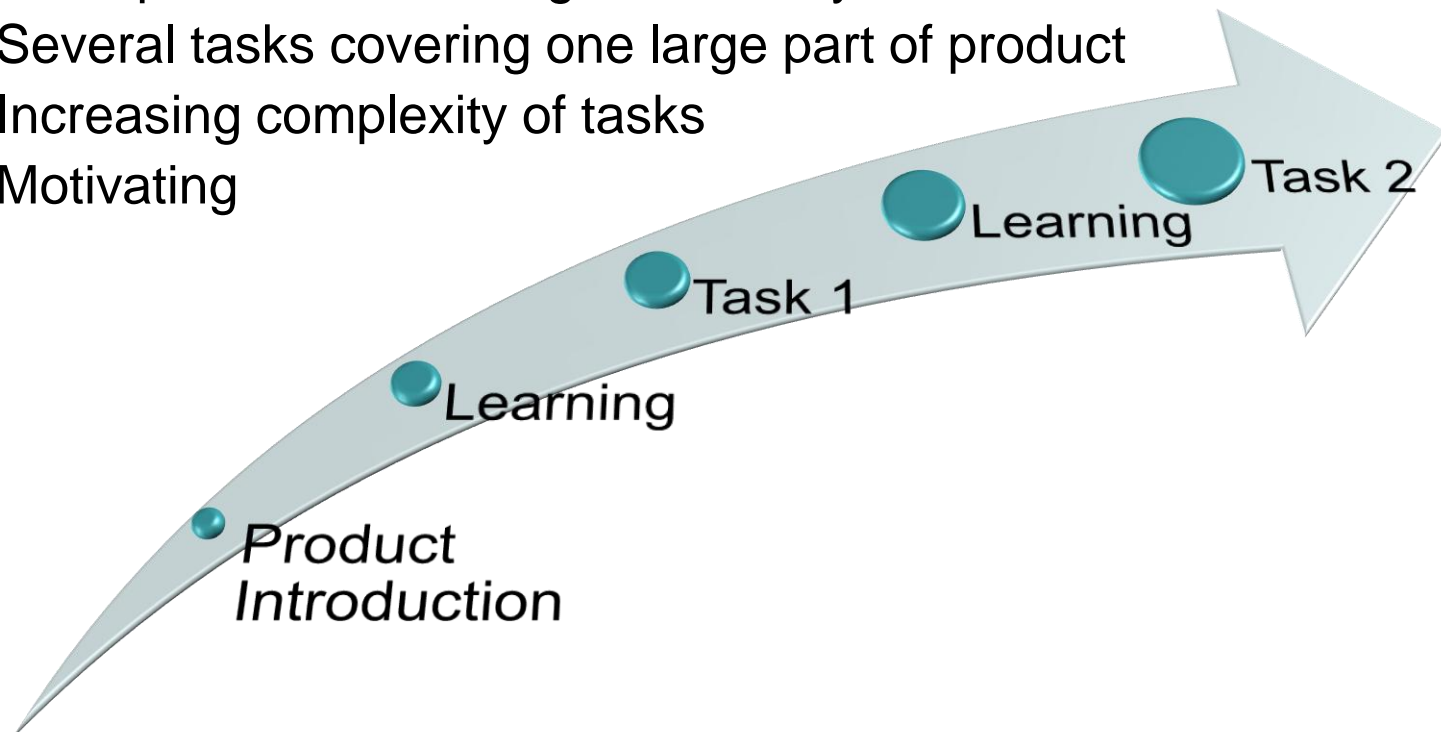
Mainframe Basic Training – Tester

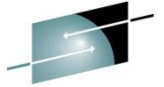




Product Specific Training – Refined Approach

- Dedicated mentor just after basic training
- Wave training – task based
 - Short periods of learning followed by a real task
 - Several tasks covering one large part of product
 - Increasing complexity of tasks
 - Motivating





SHARE
Technology • Connections • Results

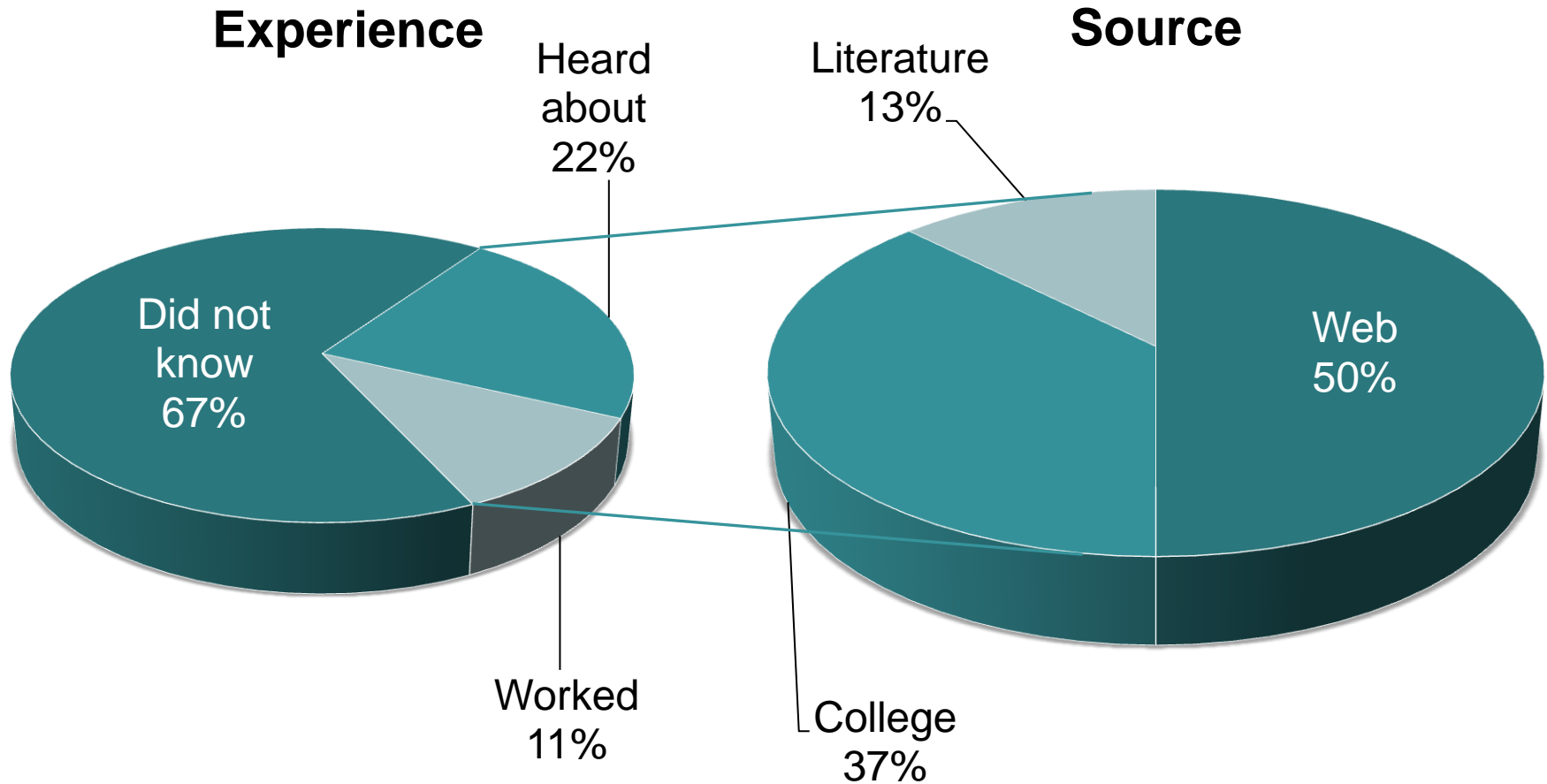
Q&A



Trainees' Perspective

- Pre-mainframe experience
- First impression
- Challenges
- Frustrations
- Motivation

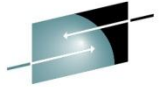
Pre-mainframe Experience



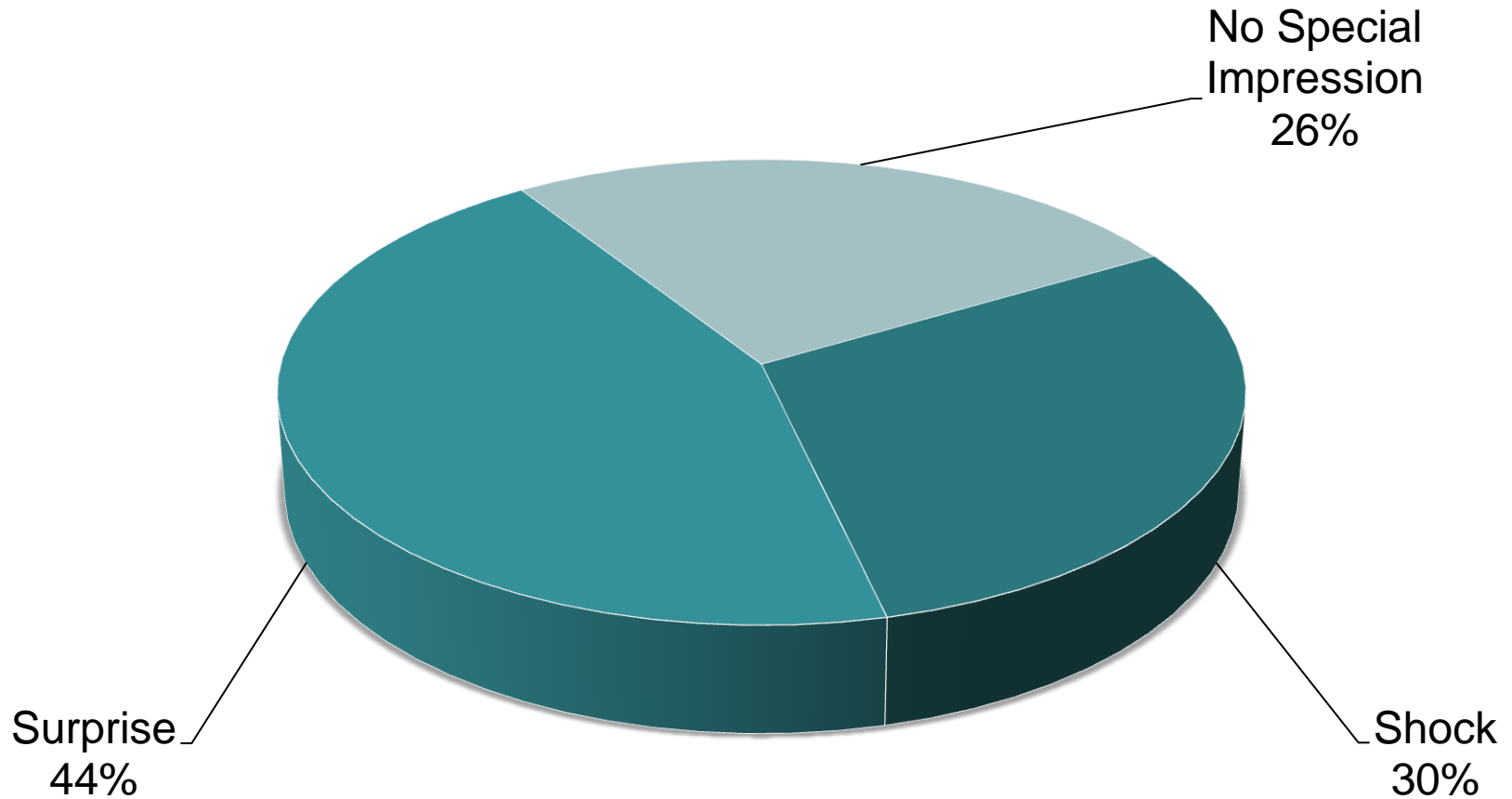


First Impression

- Often shocked by the green screen
- UNIX/Linux experience lessens the shock
- Students said:
 - “The mainframe environment felt very different, almost alien. It took a while to become acclimated to it.”
 - “No, it looks less scary than Linux!”
 - “Mainframe is a strange mix of a state-of-the-art technology and some very old outdated stuff. But that’s what makes the work a lot of fun.”



First Impression

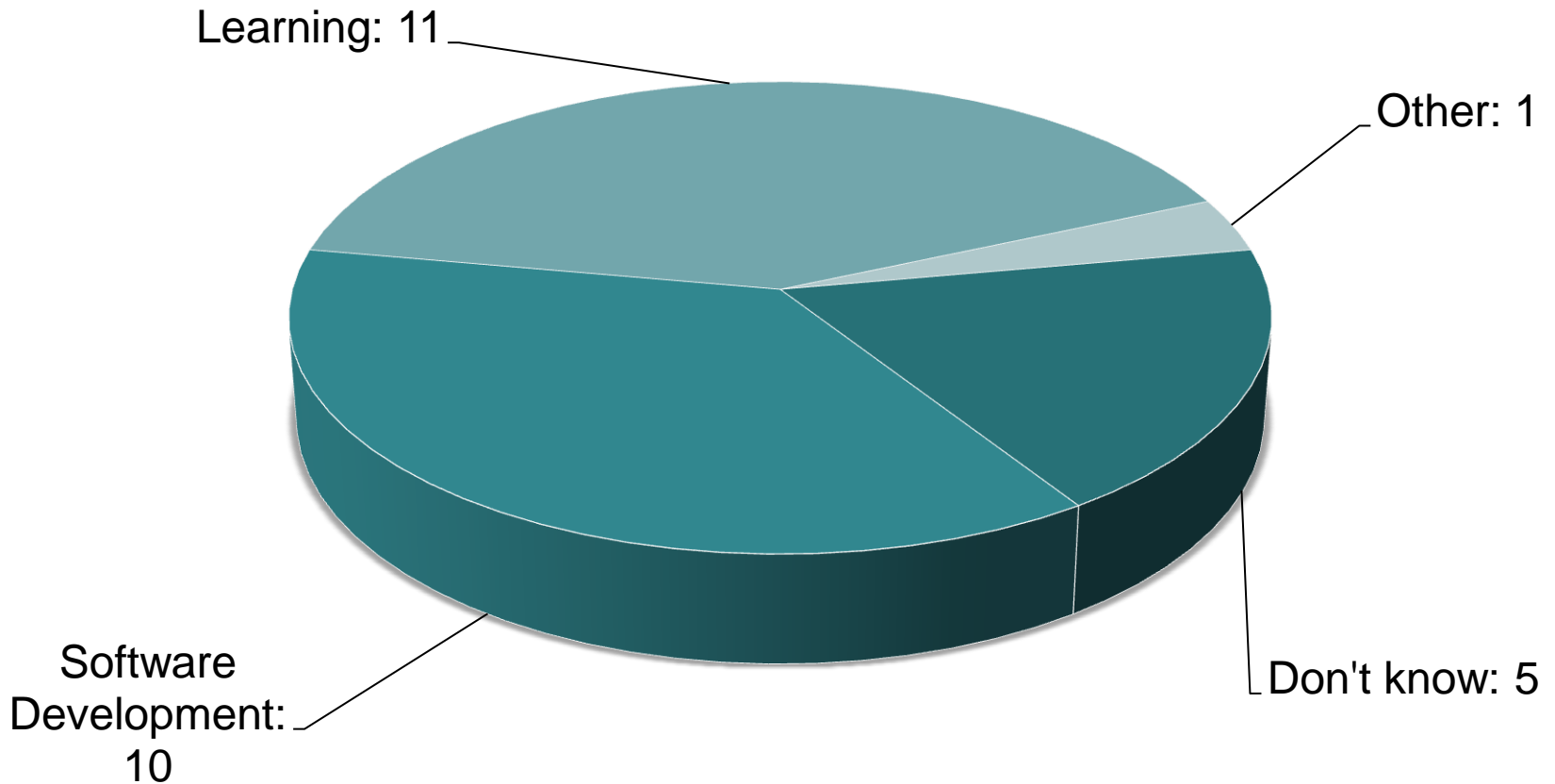




Challenges

- Assembler Language
- JCL
- HW
- Everything, there's so much to learn
- Students said:
 - “Everything was old, yet new to us. Learning JCL, REXX, HLASM within a short period of time was a challenge. Also, growing up around PCs, it was difficult to understand why the mainframe worked in a different way.”

Challenges

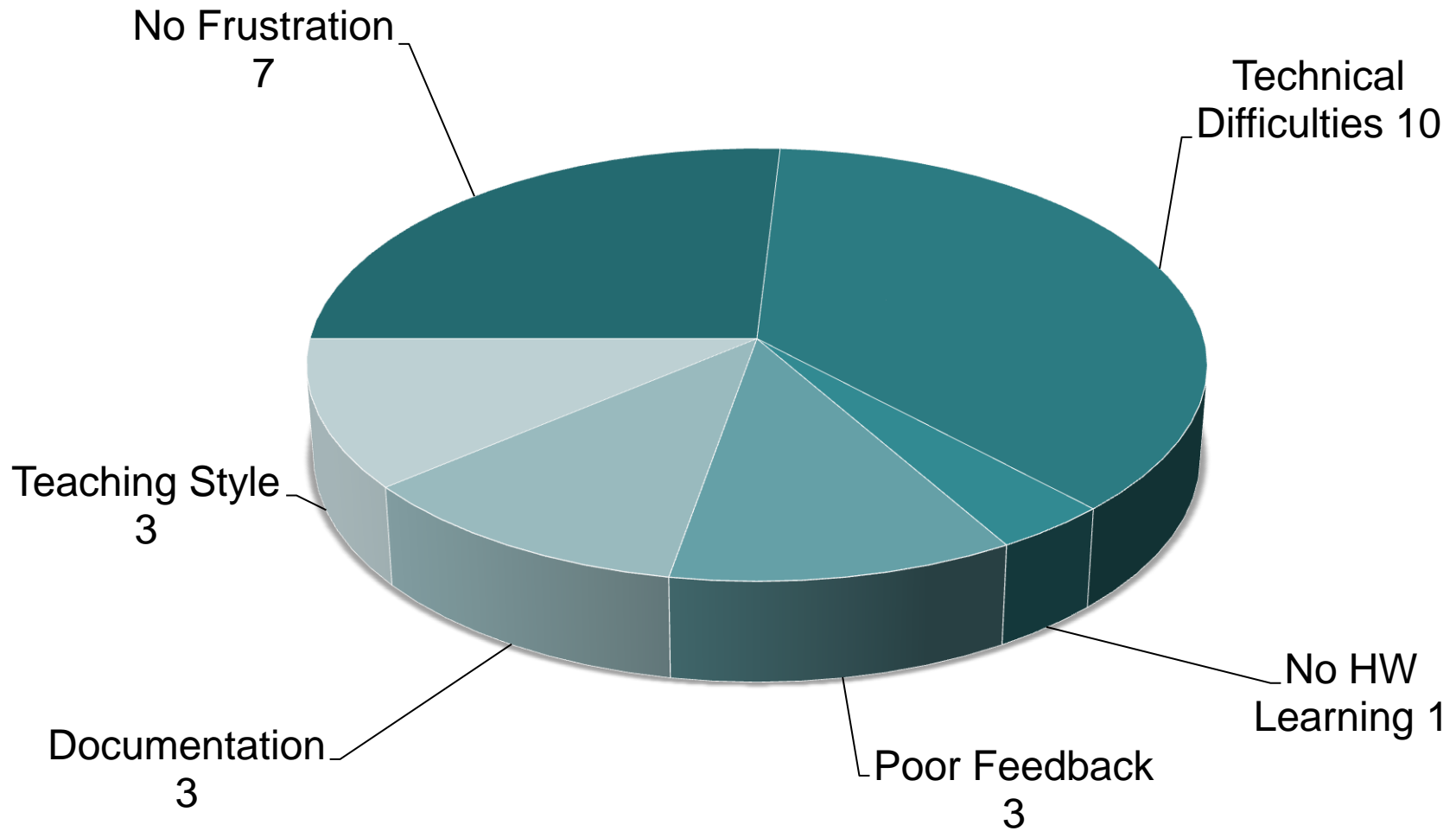




Frustrations

- Each application is controlled differently – different UIs
- Too much documentation, lack of documentation
- Allocating datasets
- Dump reading
- Students said:
 - “There is a lot of documentation; however, one can’t determine whether the documentation is from 1970 or 2005. The lack of organization of 30+ years of documentation makes most of the documentation worthless.”
 - “Reading dumps. It was difficult at first, but is enjoyable once I get the hang of it.”

Frustrations



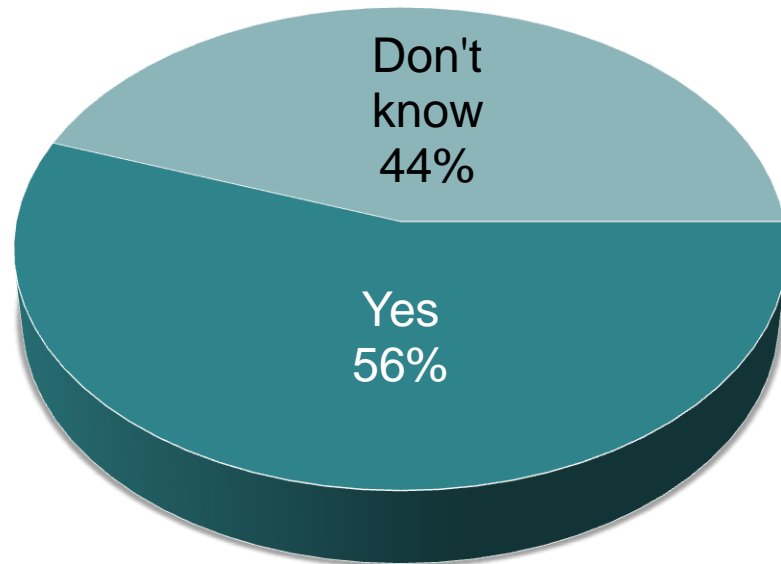


Motivation

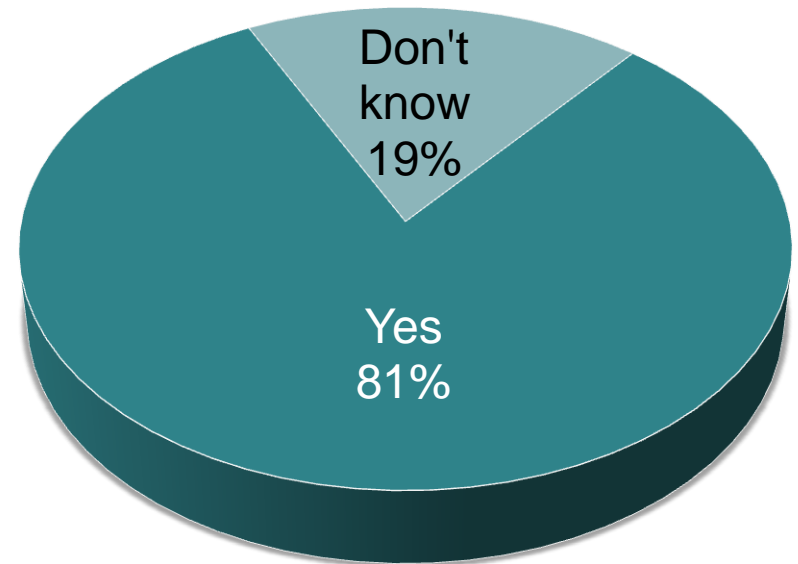
- Mainframe is their career
- Working on mainframe is a stable job
- There is future in z/Linux
- Feedback
- Mentoring by seniors – opportunity to learn a lot
- Student said:
 - “My opinions regarding mainframes as a solid and enjoyable career path has only solidified over time.”

See Their Future in Mainframe

Before



After



Future Planning: Cooperation with Universities

- Graduates with mainframe experience
- Awareness of mainframes among students
- No mainframe at colleges means no mainframe future
- One example: Student on internship in our office

Trainee perspective summary

Problem	Solution
Too much to learn in a short time	Consider role-specific training. Produce pre-hire test and report, and supply to mentor to better target learning
Uninspiring learning methods	Mentoring is normally most effective learning method. Avoid leaving new joiners alone to read through documentation
Lost in unfamiliar technology	Teach at least a brief overview of H/W. Increase cooperation with universities.
Demotivated by long learning period	'Wave training' – periods of learning alternating with real tasks
Perception of bad documentation	Teach how to use the documentation



Final Thoughts

A student said:

“There is a huge challenge in front of me. I must learn as much as I can from all the resources around me. Soon these resources will be gone, off to live near a beach or in the mountains, relaxing in a reclining chair for the rest of their retired years.

When this happens all the fun, all the innovation and all the responsibility will be handed down. We “The New Mainframers” will have the responsibility of maintaining the platform. So when you ask “Do you see your future in mainframes?” you are really asking “Are you up for the challenge?” and the answer is YES!!”