

WHY?

Better training means better produce & consistency

Desired Outcome:
-Procedural Compliance
- Consistency

Training Matters Because...
It makes for a cohesive knowledgeable staff

Increased technical abilities

Leverage technology to meet increasing demand with current staff

Consistency in the final product

Improve efficiency

So teams can better collaborate

To improve quality

Trying to share 15 years worth of experience

Not asking questions
Afraid to ask questions

Reduce insignificant repeated mistakes

Pitfall: users keep reusing the wrong design

Outcome: be away from office w/o getting questions

Have all drawings be consistent across dept.
All drawings should look the same.

Pitfalls: users that don't care to improve

Pitfall: Users don't see the big picture.
Keep repeating errors because they don't understand purpose

Consistency

It lays a good foundation to build off of.

Make workflows more efficient

Prevent anarchy

Standardize for a consistent format of output

To train staff to be able to train other staff

To be the trusted advisor / consultant

Consistency company wide

Consistency

Avoid waste
Avoid rework

Increase ability to utilize diverse project teams

Increase efficiency by eliminating questions / delays

-Efficiency
-Reduced errors
-Cross discipline utilization
-Multi-software use

Pitfalls: Attitude, access to trainers, planning, resources, time

1. Consistency
2. Yes
3. Real and product
4. Accuracy and efficiency
5. Less "errors" = higher effectiveness

They don't teach the software in college

My company is very young

Drafting practices are not being taught and it shows

Billable hours vs. Training Hours: Billable always wins

Multi-Platform

Consistency Adaptability

Confidence to question and ask why

Instill hunger for knowledge

Empower or Unleash them from their ignorance

Better final product

So the BIM manager isn't contacted over small stuff all day

No training, low productivity, no independence, no consistency
Outcome: team of free thinkers that don't trip anyone else on team

People follow instructions, but don't know why the instructions exist and why they were developed.

Outcome: -less errors
-better understanding by the reviewer / reader

Perfect Outcome: -less errors
-better understanding of why the method is used and when

Tech knowledge: conceptual knowledge
Efficiency: -less errors
-less redo
-less RFI's

Consistency across all users

Revit, drafting: not having to do things twice

-increase efficiency
Follow a standard
-Consistency among team
-New hire / onboard quicker

-increase new hire comfort level
-Build relationship with users

Users need to know more than 30-50% of the tools

Consistency in model and drawing development
Pitfalls: time, short staffed

We train so that software / technology is not a road block for creating the right team for a project.

Outcomes: Proficient users able to complete work independently & generate ideas for future growth.

-Value to companies
-Improve value of drafters & others

-No previous training with the program (Revit)
-In school or came from CAD backgrounds.

-To finish a set of drawings
-In Revit

Self-Reliant workers

WHO?

- new users
- project managers
- power users
- older CAD user

Everyone

- all newbies / beginners
- looking for new / changes in career

Engineering students without real world experience

Drafters extinct
E.I. are drafters until they become P.Ms.
Power users are older and becoming fewer.

Beginner to Advanced

Experienced employee helping train newbies

Recently graduated engineers / new hires / current users

new people not being detail oriented on new projects

Senior engineers / Designers
Unwilling to learn new skills / programs

Out of school to career change to refreshers

New Hires

Training needs to be adaptable to wide range of skillsets

Designers

Some project managers

Balancing material to accommodate the full spectrum of users

Novice - Intermediate seeing results

Mentor

Quick learner + slow learner
Both are valuable!

Engineers that are CAD users

- Close to retire
- Know-it-all

WHAT?

Can't find (hidden) folder

PAIN POINTS
- what is broken
- doesn't work right?
- QC items

CAD standards

- Eliminate redundant tasks (get users excited)
- More efficient workflows

- Why did my software crash?
- How do I do "x"?
- Where is this documented?
- Why do I have to do this?

Communication

Not just techniques, but conceptual thinking.
How to see other points of view.

How do points work?

How do I get started?

Scope Creep

Keep a list of frequent questions.
Send everyone the answer to the top 2

Getting all "drafters" to be proficient modelers in Revit

Ways to get users exposed to how others model to increase proficiency

New hires

How do I target in a corridor?
How can I analyze those elements?
Why doesn't my design work?

What is the standard?
Do we have a workflow for xyz?

How?

Custom Training
or Instruction
based on
Trainee's
Learning Style

Hybrid
- Asynchronous resources
- Specific monthly task
- Workshop
- Workshops and then a
selection of 10 AutoCAD
answer questions
- Trainings / mentoring

Videos &
Work
instruction w/
lots of pics

Training
material
located for
easy access

I: intro
D: demo
E: explain
A: action
S: summary

Learning
Styles:
All of them!

Presentation
Styles:
Video or
heavily imaged
document

All of
the
above

Subject based
documentation

Specific
video
content

- Same naming
+ file folder
structure
across all
users

Wiki's
Videos
J.I.T.

Video
Content
Bi-weekly
town halls

Personalized
On-Boarding

Self paced
training w/ a
brief live /
virtual
introduction

Create
"static" how
to manuals
as PDFs

Monthly group
mentoring on
various design tech
topics. Post video
recording (done
virtually) & PP deck
after

Short How-
To videos
for quick
tasks

WHERE?

SharePoint
Stream
LinkedIn Learning
In person training

SharePoint
Stream
Bluebeam
Teams
Word / PowerPoint
for creation

Web-
based &
In-Person

Onsite
Offsite

WHEN?

(not enough
time to post
comments)

WHY

TRAINING
MATTERS
BECAUSE...

IT MAKES FOR
A COHESIVE
KNOWABLE
STAFF

Consistency
in the
final product

To improve
quality

Better training
means better
product ?
Consistency.

Increased
Technical
Abilities

Improve
Efficiency

TRYING TO SHARE
15 YEARS WORTH
OF EXPERIENCE

Desired outcome
- Procedural
Compliance
- Consistency
-

Leverage
Technology to
meet increasing
demand with
current staff

So teams
can better
collaborate

NOT
ASKING
QUESTIONS
AFRAID TO ASK
QUESTIONS

WHY

Outcome 3

Be away
from office
w/o getting
Questions

PITFALLS...

USERS DO SEE
THE BIG PICTURE.
KEEP REPEATING
ERRORS BECAUSE
THEY DON'T UNDER-
STAND PURPOSE

MAKE
WORKFLOWS
MORE
EFFICIENT

Reduce
insignificant
Repeated
Mistakes

Have all
Drawings be
consistent
across Dept.
All Drawings
should look
the same.

Consistency

PREVENT
ANARCHY

Pitfall:
Users keep
re-using the
wrong design
Data.

PITFALLS...

USERS THAT DON'T
CARE TO IMPROVE

It lays a
good foundation
to build off of.

STANDARDIZE
FOR A
CONSISTENT
FORMAT OF
OUTPUT

WHY

CONSISTANCY
COMPANY
WIDE

INCREASE
ABILITY TO
UTILIZE DIVERSE
PROJECT TEAMS

PITFALLS:
ATTITUDE,
ACCESS TO
TRAINERS,
PLANNING,
RESOURCES -
TIME

TO TRAIN
~~OTHER~~
STAFF TO
BE ABLE TO
TRAIN OTHER
STAFF

CONSISTENCY

INCREASE
EFFICIENCY BY
ELIMINATING
QUESTIONS/DELAYS

1. consistency
2. Yes
3. Real and productive
4. Accuracy and efficiency
5. Less "errors" = higher efficiency
- 6.

To be the trusted
advisor/consultant

Avoid Waste
Avoid Re-Work

- EFFICIENCY
- REDUCED ERRORS
- CROSS DISCIPLINE UTILIZATION
- MULTI-SOFTWARE USE

the don't teach
the software
in college

WHY

Billable hours
vs.
Training hours
Billable
always
wins

CONFIDENCE
TO QUESTION
AND ASK
WHY

Better
Final
Product

My Company
is very young

MULTI PLATFORM

INSTILL
HUNGER FOR
KNOWLEDGE

So the
BIM
Manager
isn't contacted
over small stuff
all day

Drafting
practices are
not being
taught and it
shows

Consistency
Adaptability

EMPOWER /
OR
UNLEASH THEM
FROM THEIR
IGNORANCE

- NO TRAINING =
LOW PRODUCTIVITY
= NO WDEPENDENCE
= NO CONSISTENCY

- OUTCOME - TEAM OF
FREE THINKERS
THAT DON'T
TRIP AND/OR
EAT A TEAM

WHY

Consistency
across all
users.

- Increase new hire comfort level
- Build relationship with users / ~~responsibility~~

WE TRAIN SO THAT SOFTWARE/ TECHNOLOGY IS NOT A ROAD BLOCK FOR CREATING THE RIGHT TEAM FOR A PROJECT.

People follow instructions, but don't know why the instructions exist and why they were developed.

Revit, drafting
not having to do things twice

- USERS NEED TO KNOW MORE THAN 30-50% OF THE TOOLS

OUTCOMES: PROFICIENT USERS ABLE TO COMPLETE WORK INDEPENDENTLY & GENERATE IDEAS FOR FUTURE GROWTH.

Outcome: less Errors
: Better understanding by the reviewer/ Reader
Perfect outcome: less errors
: Better understanding of why the method is used and when.
Tech knowledge: Conceptual knowledge
efficiency: less errors, less Rework, less RFIs

Why training matters
- increase efficiency
- Follow a Standard
- Consistency among team
- New hire on board quicker

- CONSISTENCY IN MODEL + DRAWING DEVELOPMENT
- PITFALLS - TIME, SHORT STAFFED

- Value to companies - yes
- Improve value of drafters & others

WHY

SELF-RELIANT WORKERS

- NO PREVIOUS TRAINING WITH THE PROGRAM (REVIT)
IN SCHOOL OR CAME FROM CAD BACKGROUNDS

- TO FINISH A SET OF DRAWINGS
- IN REVIT

WHO

All newbies/
Beginners
- looking for new/
change in career

BEGINNER TO ADVANCED

New people
Not Being
Detail oriented
on new Projects.

- NEW USERS
- PROJECT MANAGERS
- POWER USERS
- OLDER CAD USERS

Engineering students
without real world
tech experience

Experienced
Employees
helping train
Newbies

SENIOR
ENGINEERS/
DESIGNERS
UNWILLING TO
LEARN NEW
SKILLS/PROGRAMS

Everyone

Drafters extinct
E.I. are drafters
until they become
PMs.
Power users are
older and becoming
fewer.

Recently graduated
Engineers / New
Hires / Current
Users

OUT OF SCHOOL
TO CAREER
CHANGE TO
REFRESHERS

WHO

DESIGNERS

Novice - Intern.
Seeing results

ENGINEERS
THAT ARE
CAD USERS

NEW HIRES

SOME PROJECT MANAGERS

MENTOR

- CLOSE TO RETIRE
- KNOW-IT-ALL

TRAINING NEEDS
TO BE ADAPTABLE
TO WIDE RANGE
OF SKILLSETS

Balancing
Material
to accommodate
the full
spectrum
of user

QUICK LEARNER
+
SLOW LEARNER
BOTH ARE
VALUABLE!

WHAT	CAD STANDARDS	COMMUNICATION	HOW DO I GET STARTED?
Can't find (Hidden) Folder.	Eliminate Redundant tasks (gets users excited) more efficient workflows	NOT JUST TECHNIQUES, BUT CONCEPTUAL THINKING. HOW TO SEE OTHER POINTS OF VIEW	SCOPE CREEP
<u>PAIN POINTS</u> - What is broken? - Doesn't work RIGHT? - QC items.	• WHY DID MY SOFTWARE CRASH? • HOW DO I DO "X"? • WHERE IS THIS DOCUMENTED? • WHY DO I HAVE TO DO THIS?	How do points work?	KEEP A LIST OF FREQUENT Qs - SEND EVERYONE THE ANSWER TO THE TOP <u>2</u>
WHAT	NEW HIRES		
GETTING ALL "DRAFTERS" TO BE PROFICIENT MODELLERS IN REVIT	How do I target in a corridor? How can I analyze these design elements? Why doesn't my design work?		
WAYS TO GET USERS EXPOSED TO HOW OTHERS MODEL TO INCREASE PROFICIENCY	What is the Standard? Do we have a workflow for xyz?		

HOW

Custom Training
or Instruction based
on Trainee's Learning
Style.

Hybrid:

- Provide online resources
- Specific monthly class
- Bootcamp

Helpdesk email that
is collection of 10 folks
to answer questions
Trainings/shadowing

Videos

• Work
Instruction
w/ LOTS of pics

Training
Material
located for
easy access

LEARNING STYLES
ALL OF THEM!

PRESENTATION STYLES
VIDEO OR HEAVILY
IMAGED DOCUMENT-
MAYBE #1 or 1

ALL OF THE
ABOVE

SPECIFIC VIDEO CONTENT

How
- Same naming
&
File Folder
Structure
across all
Users.

SUBJECT BASED DOCUMENTATION

WIKI'S
VIDEOS
J.I.T.

HOW

Self paced
training w/
a brief 'live/
Virtual' introduction

SHORT HOW TO VIDEOS FOR QUICK TASKS

VIDEO CONTENT

BI-WEEKLY TOWN HALLS

PERSONALIZED

ON-BOARDING

CREATE "STATIC" HOW TO MANUALS AS PDFS

MONTHLY GROUP MENTORING ON VARIOUS DESIGN TECH. TOPICS. POST VIDEO RECORDING (DONE VIRTUALLY) & PP DECK AFTER

WHERE

Web-Based
&
In-Person.

SHAREPOINT
STREAM
LINKED IN LEARNING
IN PERSON TRAINING

ONSITE
OFFSITE

SHAREPOINT
STREAM
BLUEBEAM
TEAMS
WORD/
POWERPOINT
FOR CREATION

WHEN