

February 17, 2015

ENGR110/210

Perspectives in Assistive Technology



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Instructor

Questions or Comments?

VA



Mid-term Presentation & Report

1. Mid-term report and presentation together account for 20% of course grade.
2. Presentations are scored, not “graded”.
3. Reports will be marked up and rated “good”, “very good”, or “excellent”.
4. Mid-term report and presentation should be considered “practice” for final report and presentation (which each account for 30% of course grade). Consider presentation comments and report markups.
5. Final grade considers reports, presentations, and participation.
6. Missed lectures that are not made up have an impact on an student’s grade.
7. Previous years’ students got “A” or “A-” because they put in a significant effort into their projects, presentations, and reports – and they participated in class discussions.

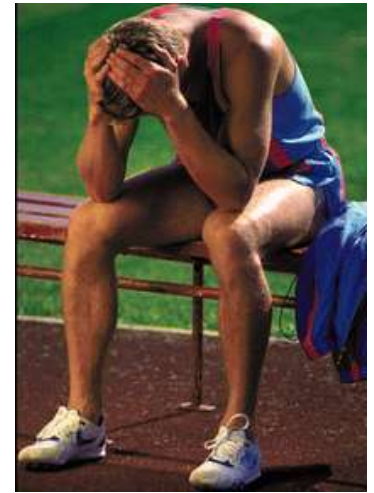


The Upside of

Failure

Failure

1. Is it always a negative thing?
2. Is it always something to avoid?
3. Are some failures better than others?
4. Is **failure** the opposite of **success**?



IF AT FIRST
YOU DON'T
SUCCEED,
TRY, TRY
AGAIN!

If at first you don't succeed,
don't take up skydiving!



“Failure is not an option”



**Why wasn't
Failure an
option?**

Apollo XIII

failure is always an option



Adam Savage
Mythbusters

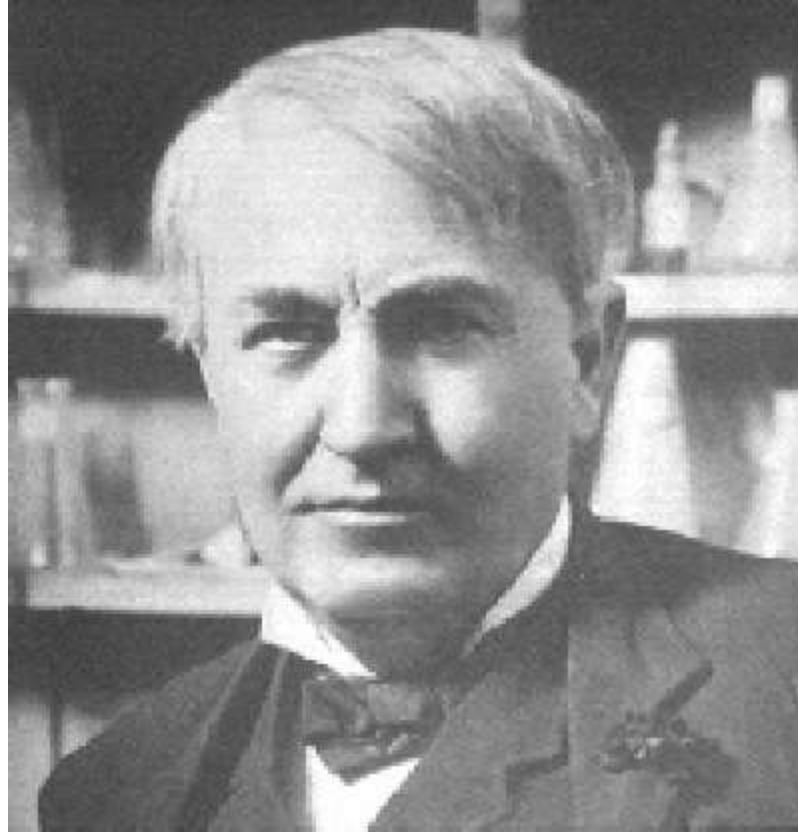
“Failure is not falling down,
it is not getting up again.”

**Don't give
up after a
setback**



Mary Pickford
Actress

“I have not failed. I've just found 10,000 ways that won't work.”



Thomas Alva Edison

Edison could have benefitted from a better scientific understanding of the problem



Seth Shostak
SETI Astronomer

**“If you want to increase your success rate,
double your failure rate.”** **Prototype more,
prototype faster**

You can be discouraged by failure, or you can learn from it

- so go ahead and make mistakes, make all you can -
- because, remember that's where **you'll find success –
on the far side of failure.**



Thomas J. Watson Sr.

**Need to
experience failure
before you can
achieve success**

**Fail Faster.
Succeed Sooner.**



Other Thoughts

Not many people are willing to give failure a second opportunity - they fail once and it's all over. If you're willing to **accept failure and learn from it**, if you're willing to consider failure as a blessing in disguise and bounce back, you've got the potential of harnessing one of the most powerful success forces.

Joseph Sugarman

Failure should be our teacher, not our undertaker. Failure is delay, not defeat. It is a **temporary** detour, not a dead end.

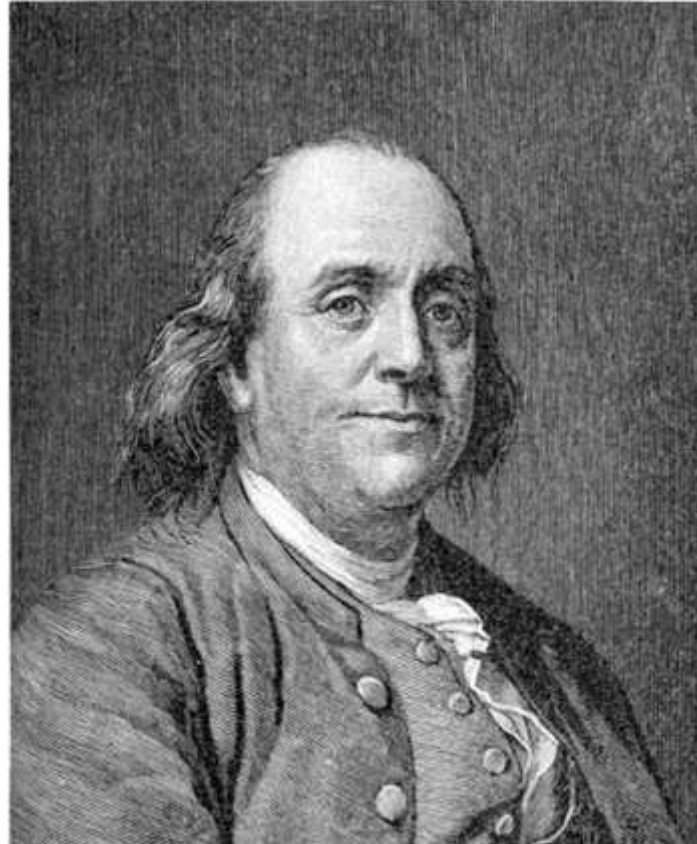
Denis Watley

From honest failure can come **valuable experience**.

William Arthur Ward



“Failure to prepare
is preparing to fail”



**Incorporate
failure into your
design process**

Ben Franklin
Founding Father

“Trying is the first step
towards failure”



**Avoid failure by
not making an
attempt, taking
a chance**

Homer Simpson
Cartoon Father

“Embrace Failure!”



I've failed!

Professor Dave Beach

“Failure is the highway to success”



**Failure is part
of the process**

John Keats
Poet

Messages

1. Prototype early and often – use sketches, crude models, cardboard-aided design (CAD)
2. Employ all your knowledge, senses, skills, and engineering intuition
3. Make good use of team members, coaches, resource people, teaching team, and facilities
4. Balance planning, analyzing, and fabrication tasks – **manage your time, your most valuable resource**
5. Don't expect a linear path of successes from beginning to end
6. Prepare to make mistakes and experience failures – plan for them, understand them, learn from them
7. Don't get discouraged & **don't give up**

Discussion

1. Was Apollo XIII a success or failure?
2. Was the Concorde a success or failure?
3. What ultimately determines success / failure?
4. Can an effort be a partial success / failure?



Next Tuesday – Feb 24th

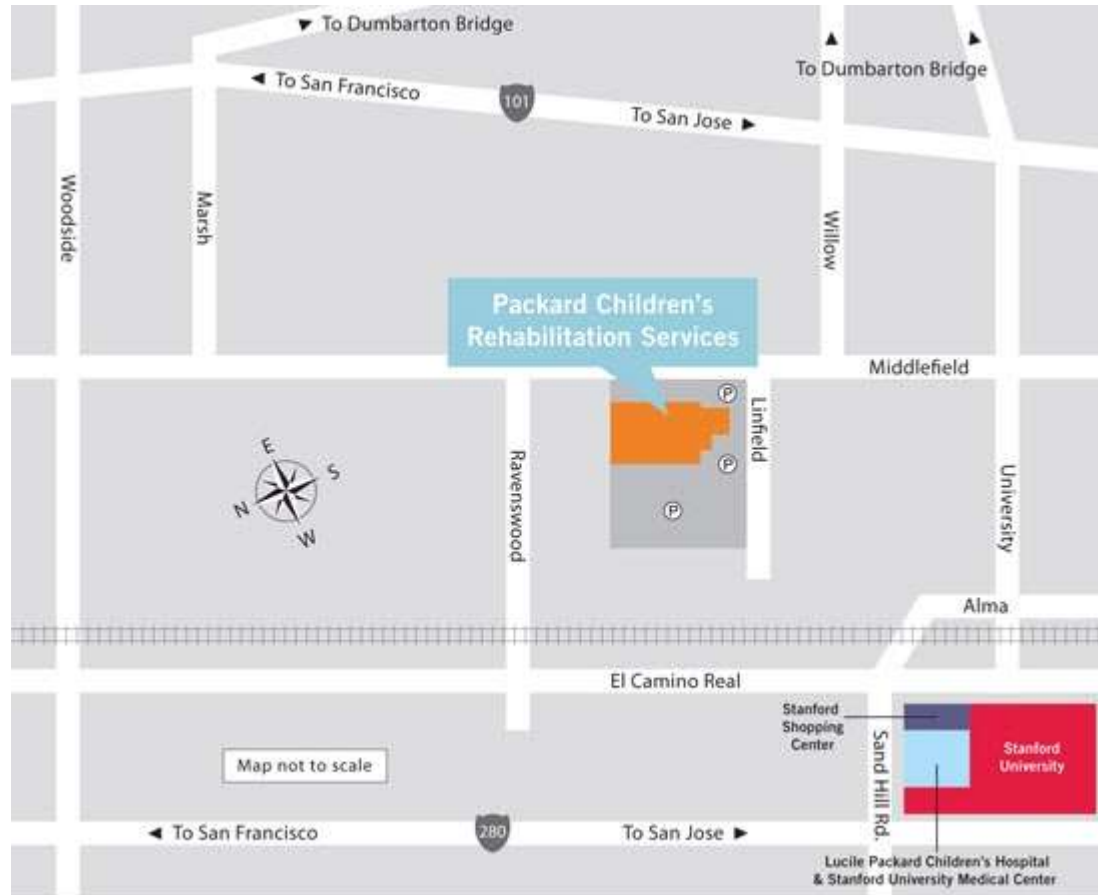


Jessica Rose, PhD & Katelyn Cahill-Rowley

Tour of Motion & Gait Analysis Lab

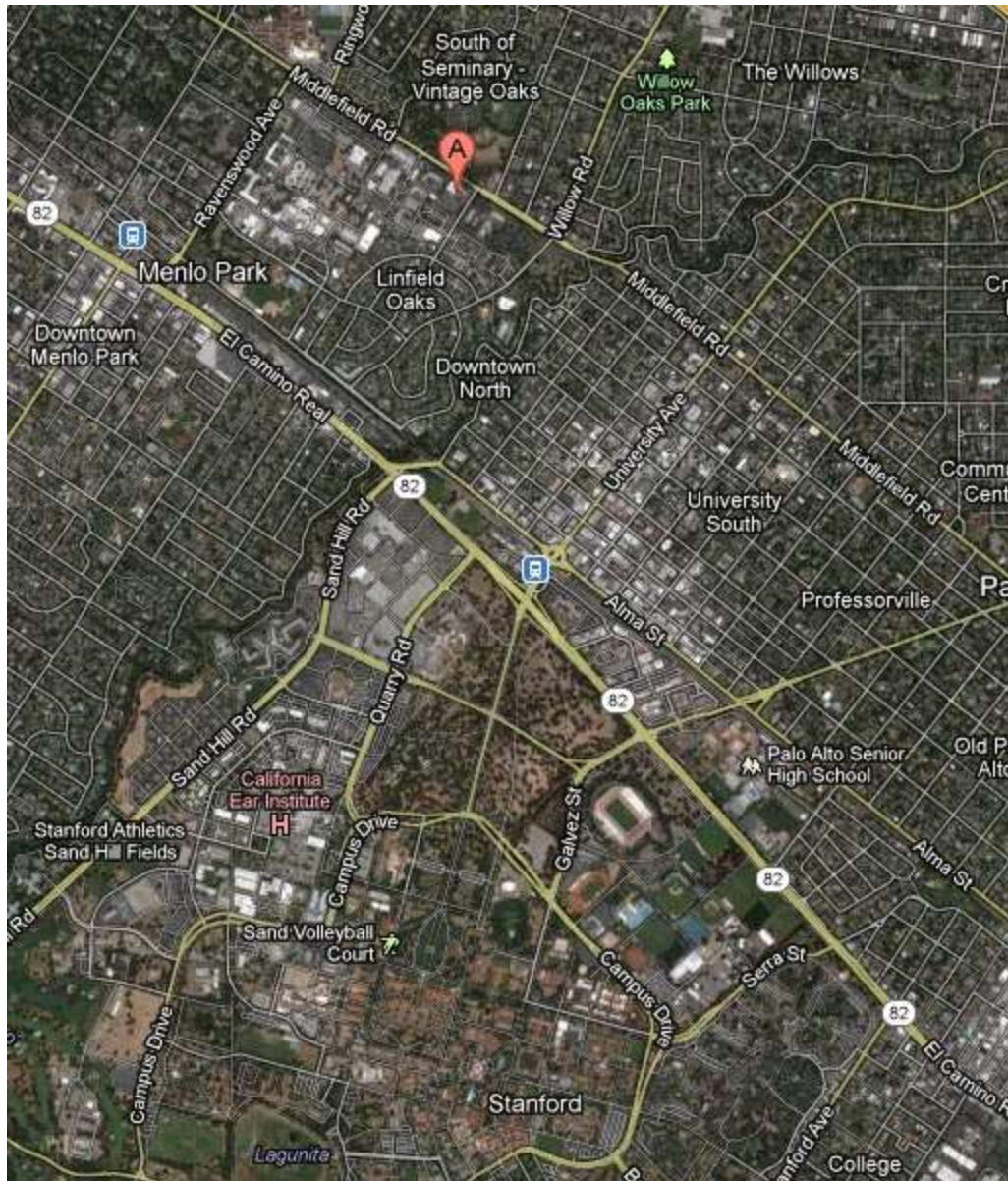


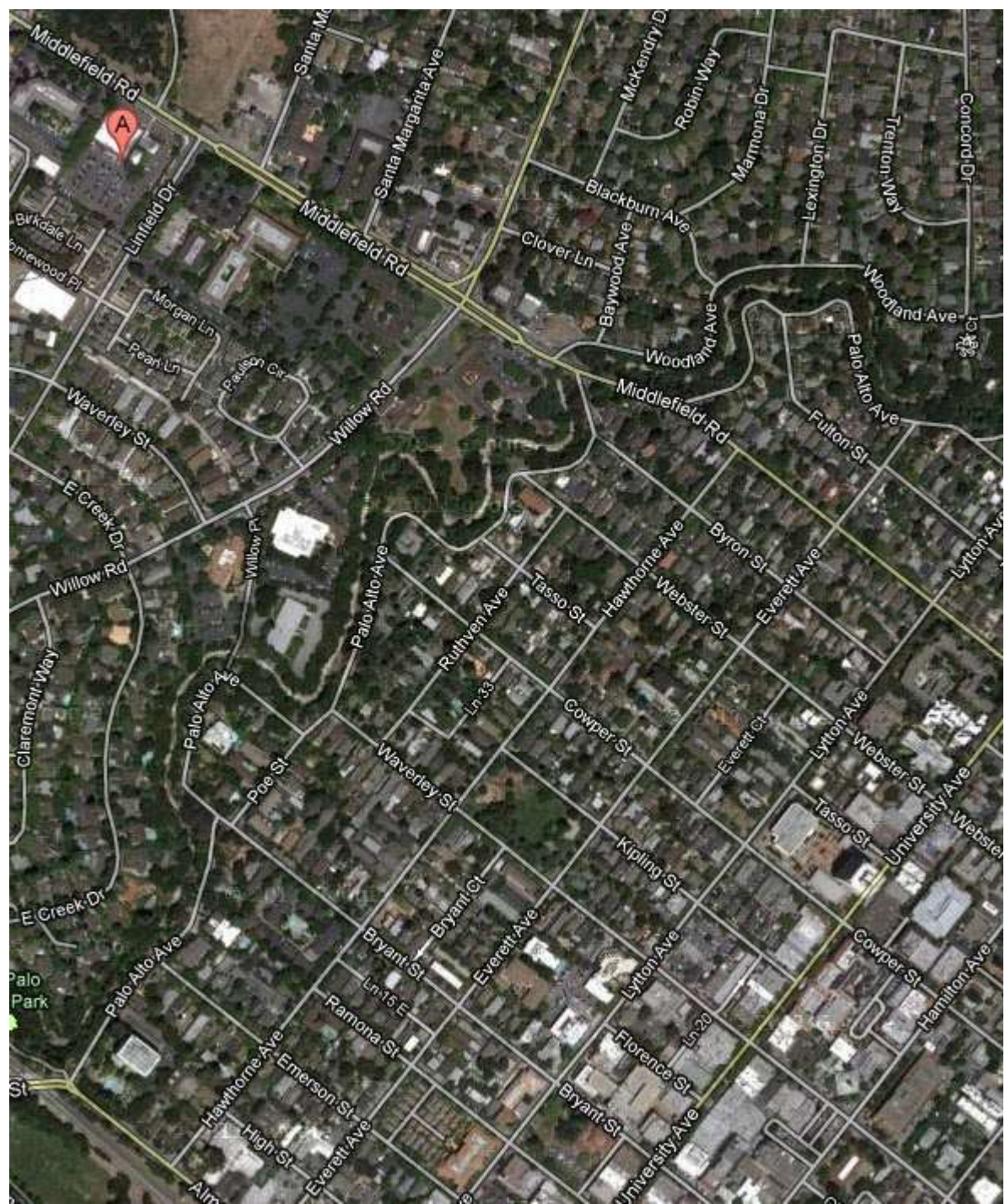
Motion & Gait Analysis Laboratory



[Link](#)

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Menlo Park, CA 94025





Middlefield Rd

Middlefield Rd

Middlefield Rd

Palo Alto Ave

Palo Alto Ave

University Ave

A

Middlefield Rd

Linfield Dr

Morgan Ln

Waverley St

E Creek Dr

Willow Rd

Claremont Way

E Creek Dr

Palo Alto Ave

Palo Park

St

Santa Margarita Ave

Blackburn Ave

Willow Rd

Palo Alto Ave

Waverley St

Poe St

Bryant St

Ramona St

Emerson St

High St

Everett Ave

Alm

Mickendry D

Robin Way

Blackburn Ave

Baywood Ave

Woodland Ave

Ruthven Ave

Tasso St

Cowper St

Everett Ave

Bryant St

Florence St

Bryant St

Marmona Dr

Lexington Dr

Woodland Ave

Fulton St

Byron St

Webster St

Everett Ct

Lytton Ave

Kipling St

Lytton Ave

University Ave

University Ave

Concord Dr

Trenton Way

Woodland Ave

Palo Alto Ave

Lytton Ave

Webster St

University Ave

Webster St

Tasso St

University Ave

Cowper St

Hamilton Ave











Thursday



Assistive Technology Faire

- Visual Touch Therapy
- Service Dog Training
- Digital Accelerator Ring and the Main Hand Brake
- Podna Rover
Magnifiers, Mobility Aids, Computer Hardware & Software
- Beyond Exoskeletons - Wearable Exosuit Technologies
- Eyefluence's Eye-interaction Platform
- PEAT
- Whill Wheelchair
- RoScooter and Rota Wheel

Review all the offerings with someone in the class who is not on your project team.

Today



Teri A. Adams, JD

**Universal Design and the Ed Roberts Campus
in Berkeley**

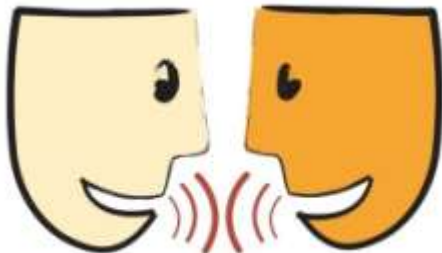
Short Break



Break Activities



- Stand up and stretch
- Take a bio-break
- Text message
- Web-surf
- Respond to email
- Talk with classmates
- Reflect on what was presented in class



Class
Dismissed!

