

MOTIVATION AND FLOW DURING HOMEWORK: HOW DO THEY RELATE?

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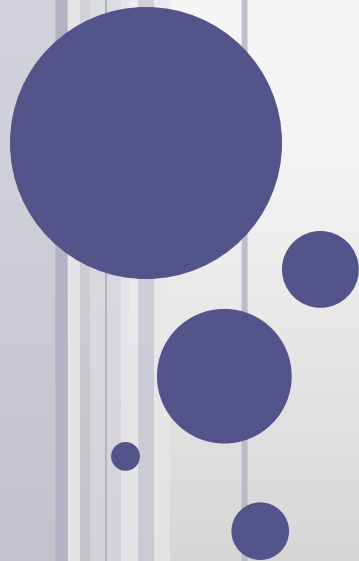
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SELF-DETERMINATION THEORY

- Richard M. Ryan and Edward L. Deci
- “Is an approach to human motivation and personality that uses traditional empirical methods while employing an metatheory that highlights the importance of humans’ evolved inner resources for personality development and behavioral self-regulation.”¹
- Research of Both Motivations
- Extrinsic->Intrinsic Motivation



EXTRINSIC MOTIVATION

- The current path and method
- “I need to do this or...” (i.e. doing an activity for someone/something else)
- Poorer results



EXTRINSIC MOTIVATORS

- Performance Feedback



- Imposed Goals



- Competition



- Deadlines



EXTRINSIC MOTIVATORS

- Rewards/Grades



- Threats/Commands



INTRINSIC MOTIVATION

- “The inherent tendency to seek out novelty and challenges, to extend and exercise one’s capacities, to explore, and to learn.”¹
- The ultimate goal
- The difference between “I want to do...” and “I need to do...”



SELF-DETERMINATION VOCABULARY

- Perceived Locus of Causality
- Volition
- Perceived Choice
- Composed of...
 - **Autonomy**
 - Competence
 - Relatedness



AUTONOMY

- “Choice leads to enhanced motivation, liking, and interest for a task.”¹
- The choice must be perceived as a choice.
- Autonomy is experienced when actions are perceived as
 - a) Internal locus of causality
 - b) Volitional
 - c) Chosen and performed out of interest²



AUTONOMY

- Thrives in Education
- Students to Pursue Own Agendas
- Most Extrinsic Motivators Attack Autonomy



COMPETENCE

- State of having requisite or adequate ability or qualities¹
- Become a Master
- Related to Csikszentmihalyi Flow Theory
 - Optimal Desire
 - Challenges vs. Skills
 - Skills > Challenges = Boredom
 - Challenges > Skills = Anxiety



FLOW COMPONENTS¹

- Challenging activity and skill
- Metacognition
- Clear goals
- Direct feedback
- Full concentration
- Sense of control
- Loss of self-consciousness
- Time transformation

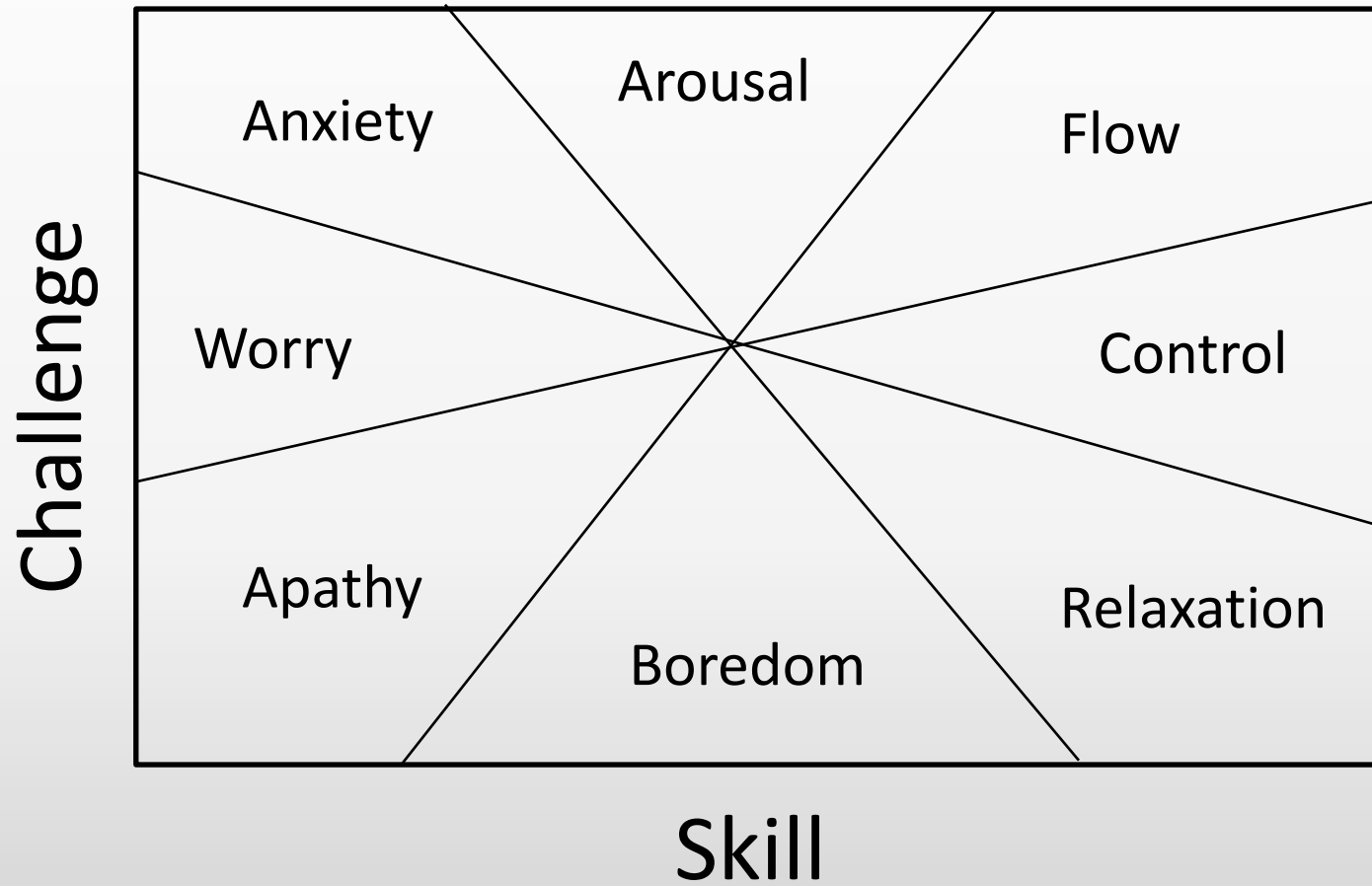


FLOW COMPONENTS¹

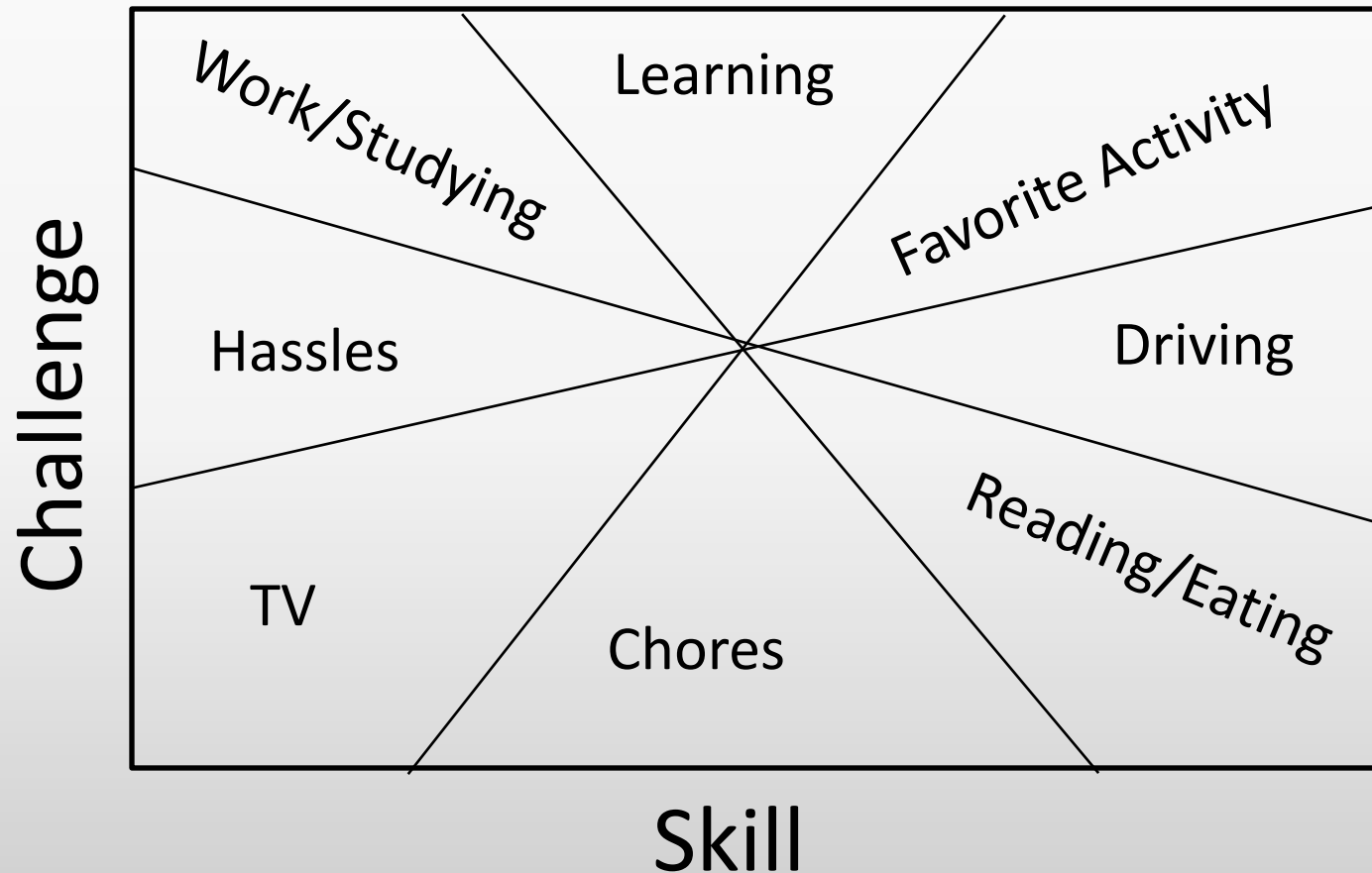
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FLOW MODEL



FLOW MODEL “IN OTHER WORDS”



RELATEDNESS

- Refers to two aspects
 - 1) Pertinence to Goals
 - 2) Group Activities
- Importance of Activity
- Teamwork



SDT AND VIDEO GAMES



THE RESEARCH ON HOMEWORK

○ Harris Cooper's Efforts

- Professor of Psychology at Duke University
- Homework in Schools¹
- 10 minutes of TOTAL homework/grade
- Homework choice equals²
 - Greater intrinsic motivation
 - Perceived competence
 - Higher grades
 - More homework completed



ALFIE KOHN: THE DREADED NO-HOMEWORK APPROACH

- *Corridor Wit: Talking Back to Our Teachers*
- *“Well, Duh!” – Ten Obvious Truths That We Shouldn’t Be Ignoring*
- *The Homework Myth: Why Our Kids Get Too Much of a Bad Thing*
- *The Schools Our Children Deserve: Moving Beyond Traditional Classrooms and “Tougher Standards”*



CONCLUSION OF MY PART

○ Quick Summary

- Intrinsic motivation better
- Extrinsic motivators not better
- Cooper: homework good in high school
- Kohn: need a couple more hours to cover everything



STUDY DESIGN (PART 1)

○ Population

- Who: 33, Algebra 1 students
- Where: Wisconsin rural high school
- Curriculum: CPM

○ Theory: SDT, Flow, homework research

○ Design

1. Students complete short survey after each homework for 2 weeks.
2. Limitation: Students completed surveys during class next day by teacher's request.

○ Completion: 257/297 (86.5%)



RESULTS (1-5 SCALE)

Construct	Mean (s.d.)
Confidence	3.73 (1.273)
Skills	3.69 (1.177)
Something else	3.66 (1.517)
Control	3.5 (1.399)
Effort	3.47 (1.238)
Importance	3.2 (1.205)
Challenge	2.51 (1.162)



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COMPETENCE (FLOW)

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RELATEDNESS / PURPOSE

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Confidence	3.73 (1.273)
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MEANS X FEELING

	Focused	Relaxed	Bored	Frustrated
Confidence	4.23	4.31	3.89	2.79
Effort	4.21	3.92	3.16	3.32
Skills	4.15	4.12	3.78	3.08
Importance	3.56	3.46	2.9	3.69
Something else	2.69	2.77	4.31	3.68
Challenge	2.35	1.85	2.4	3.39



MEANS X FEELING (FOCUSED)

	Focused	Relaxed	Bored	Frustrated
Confidence	4.23	4.31	3.89	2.79
Effort	4.21	3.92	3.16	3.32
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MEANS X FEELING (FRUSTRATED)

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Effort	4.21	3.92	3.16	3.32
Skills	4.15	4.12	3.78	3.08
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POSITIVE CORRELATIONS

Highly positive (between ~0.5 and 1)

- Skills x Control (.744)
- Control x Confidence (.739)
- Confidence x Skills (.734)

Somewhat positive (between 0 and ~0.5)

- Effort x Control (.507)
- Effort x Skills (.458)
- Effort x Confidence (.429)
- Effort x Importance (.293)
- Importance x Challenge (.289)



NEGATIVE CORRELATIONS

Somewhat negative (between -0.5 and 0)

- Other x Effort (-.169)
- Challenge x Skills (-.269)
- Challenge x Control (-.318)
- Challenge x Confidence (-.319)

Very negative (between -1 and 0.5)

- None



QUALITATIVE: DISTRACTIONS

- Out of 167 responses
 - 31.7% were talking
 - 23.4% were texting
 - 20.4% were listening to music
 - 24.5% were other (eating, television, Facebook, not homework, etc.)



DISCUSSION

Students don't feel challenged by HW

- Challenge (m=2.51, lowest!)
 - Importance (.289)
 - Skills (-.269)
 - Control (-.318)
 - Confidence (-.319)
- What is purpose of homework?



QUESTIONS

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