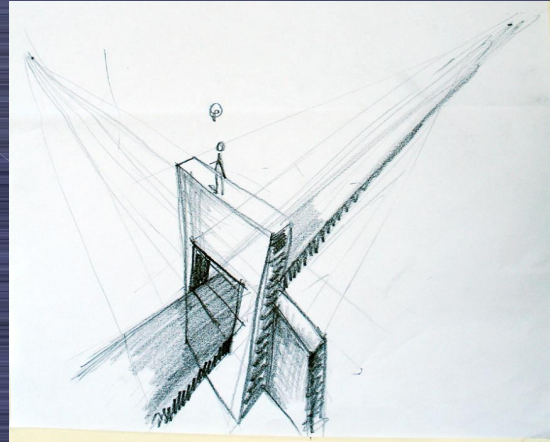
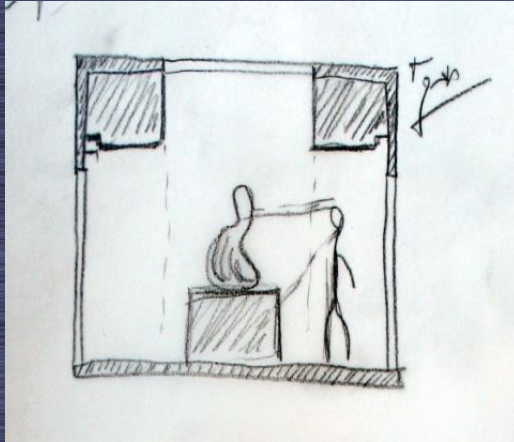


Solution Generation Design Profiles: Reflection on "Reflection in Action"



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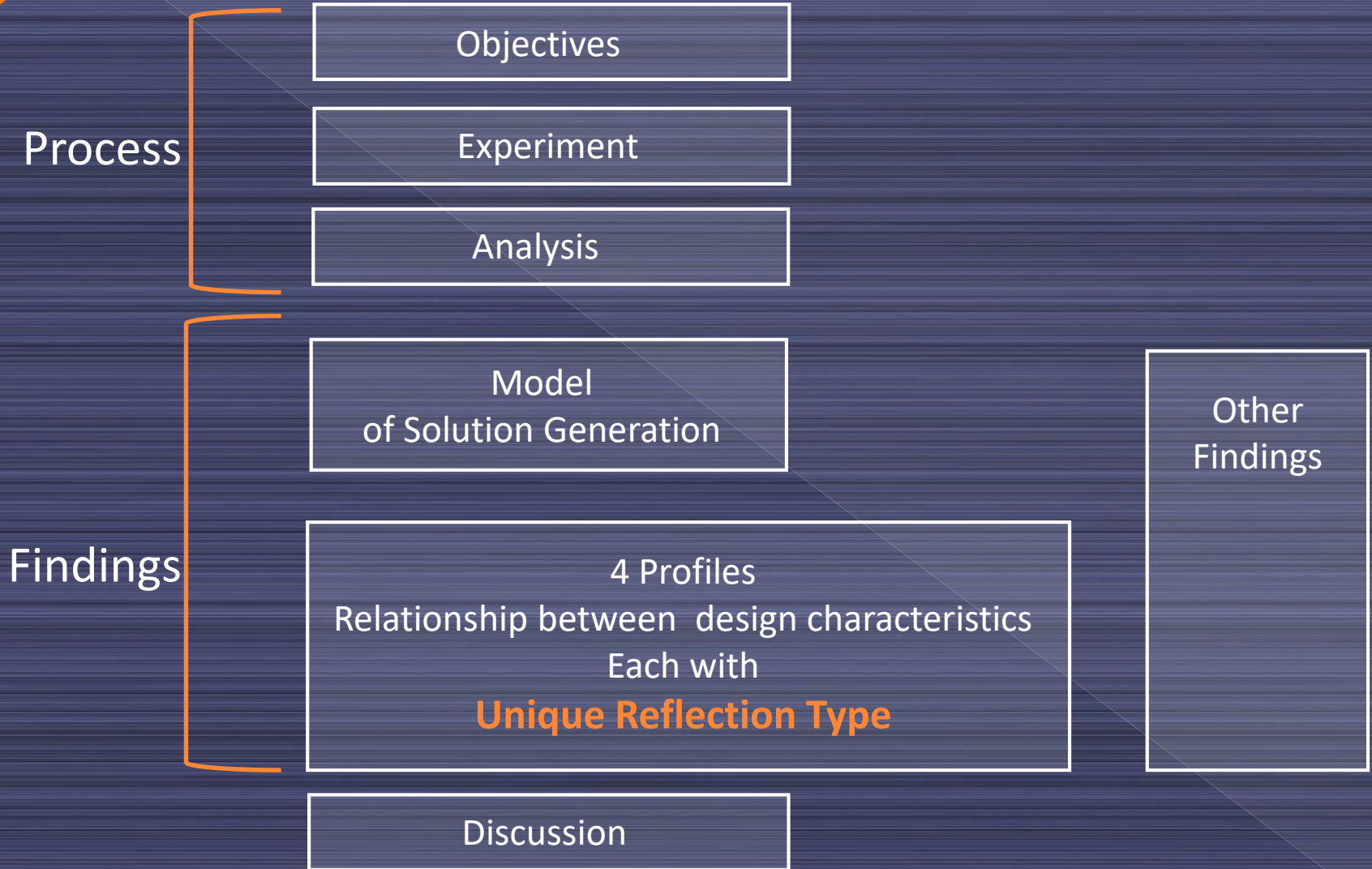
Research Principles

- Acquiring a personal process of design is a central objective of design education.
- Understanding differences among designers is key to optimizing personal design process.

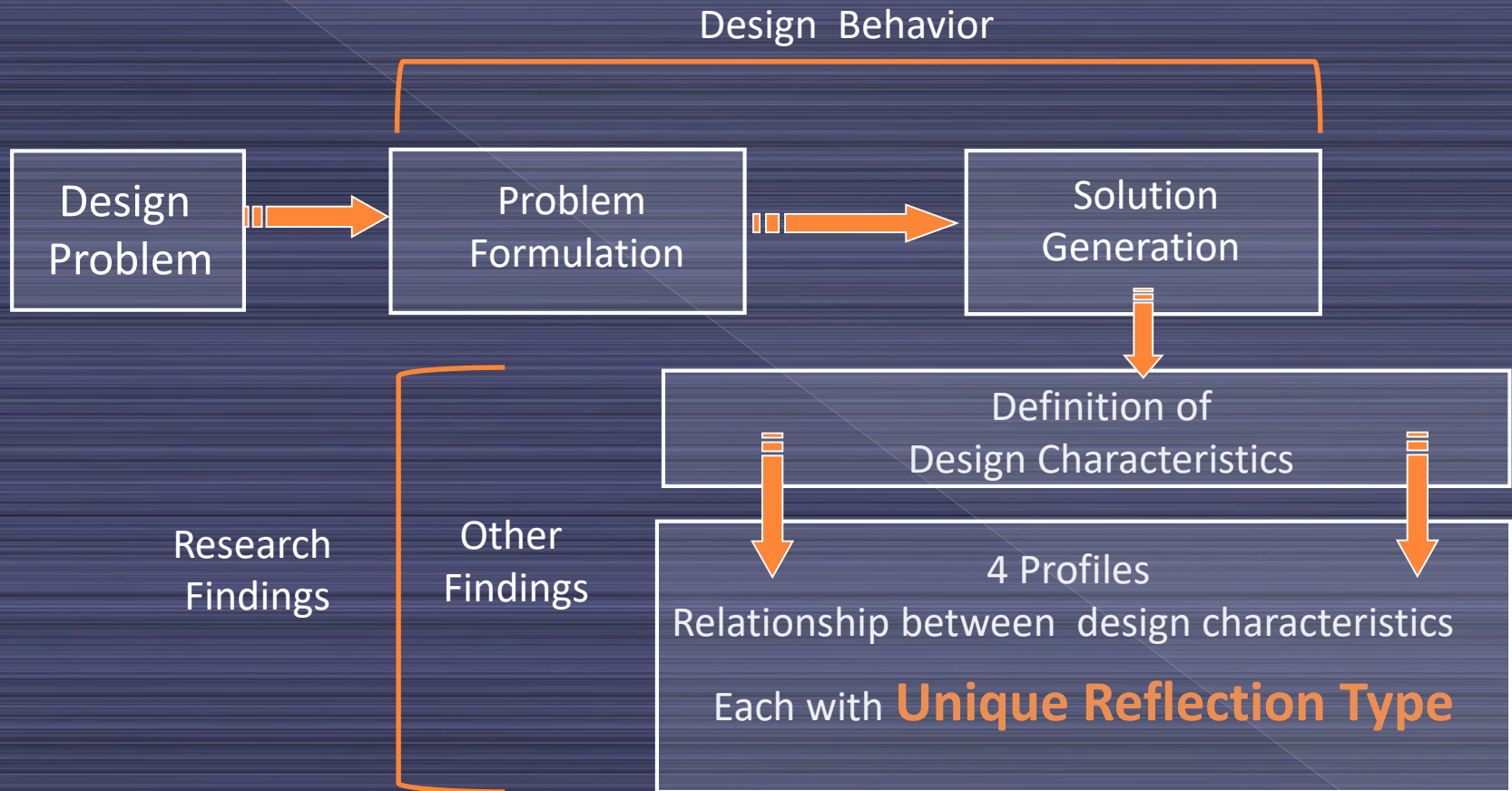
*“Design education is
fundamentally about learning
‘trust’ in a process”*

Ochsner, 2000

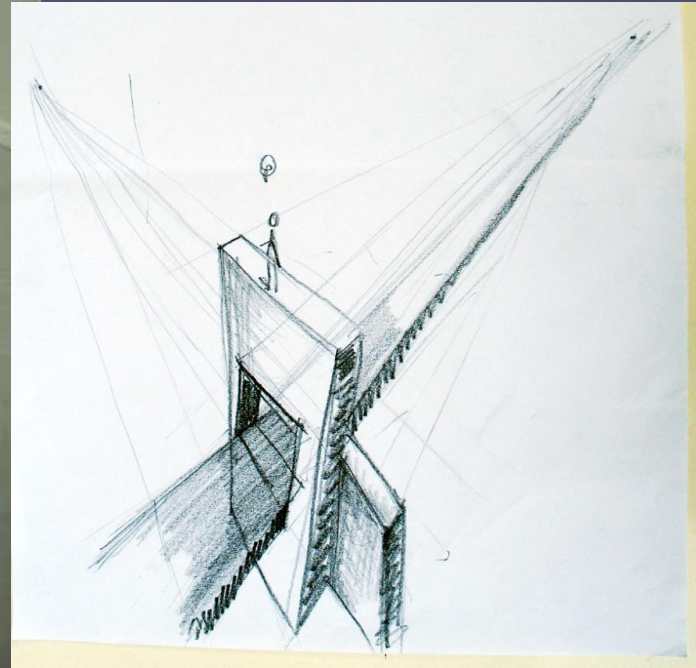
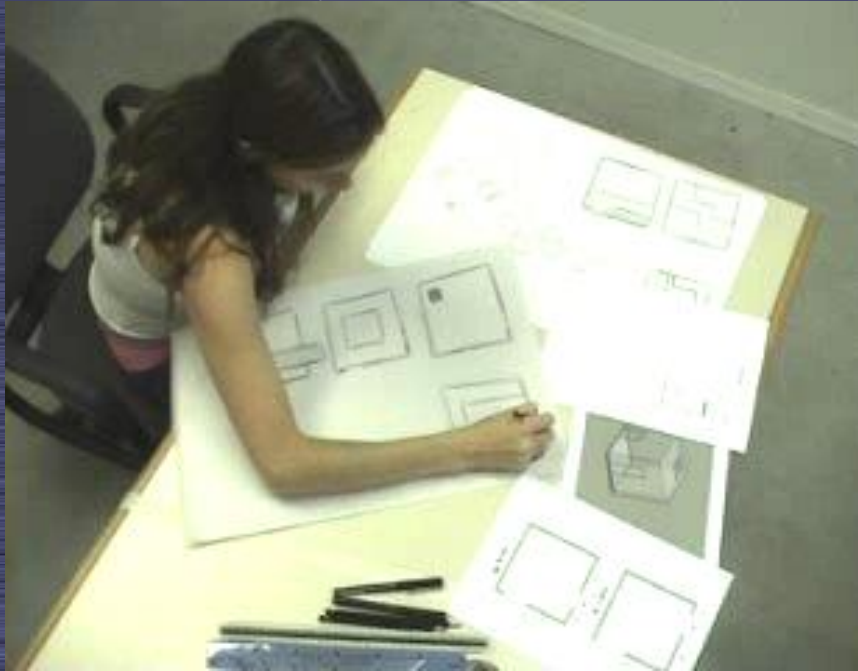
Research



Design process - Design Problem Solving



Experiment

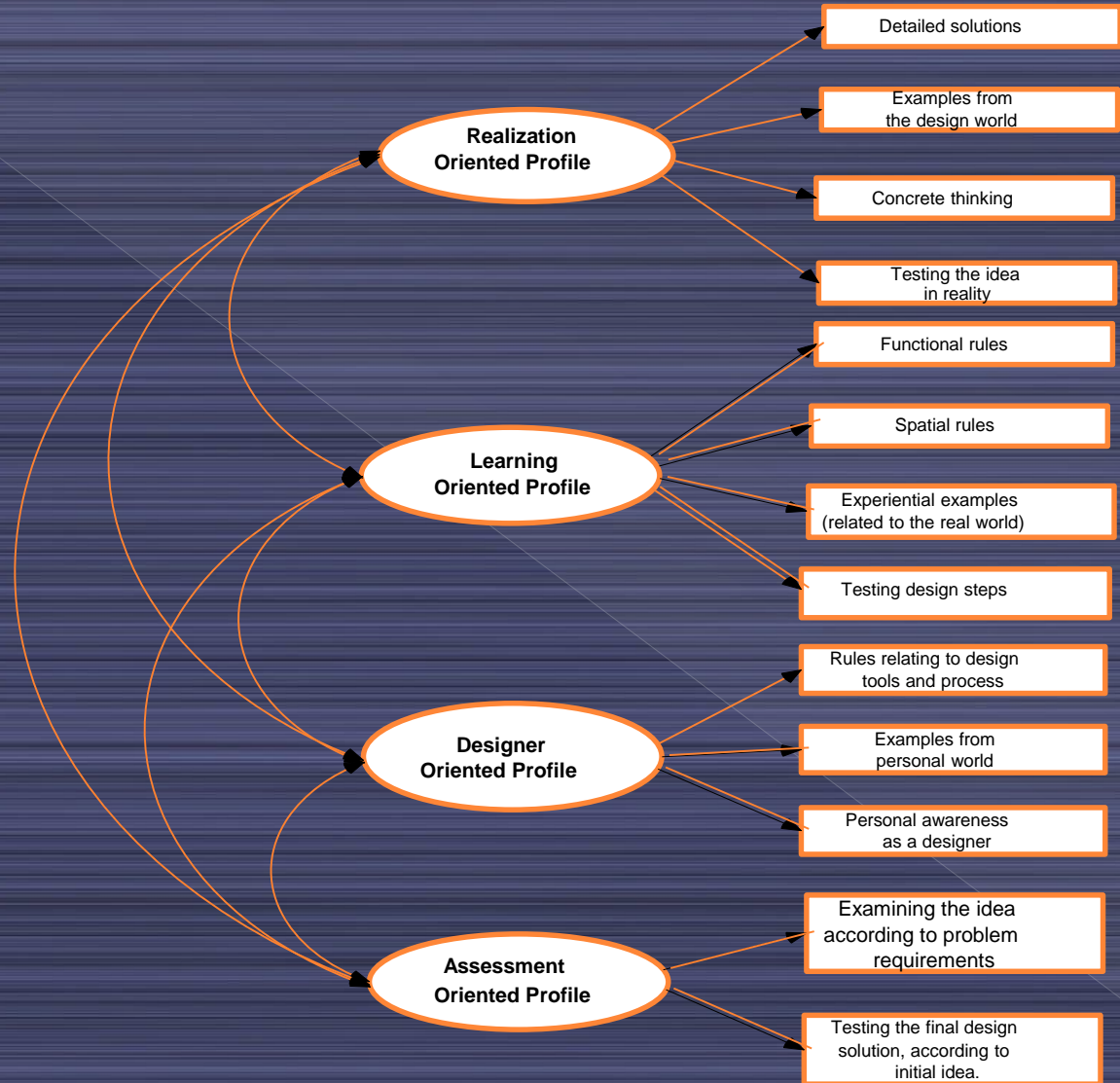


"... I describe the movement in space: Here you enter and here you leave (pointing the sketch) "

Analysis - factor loading

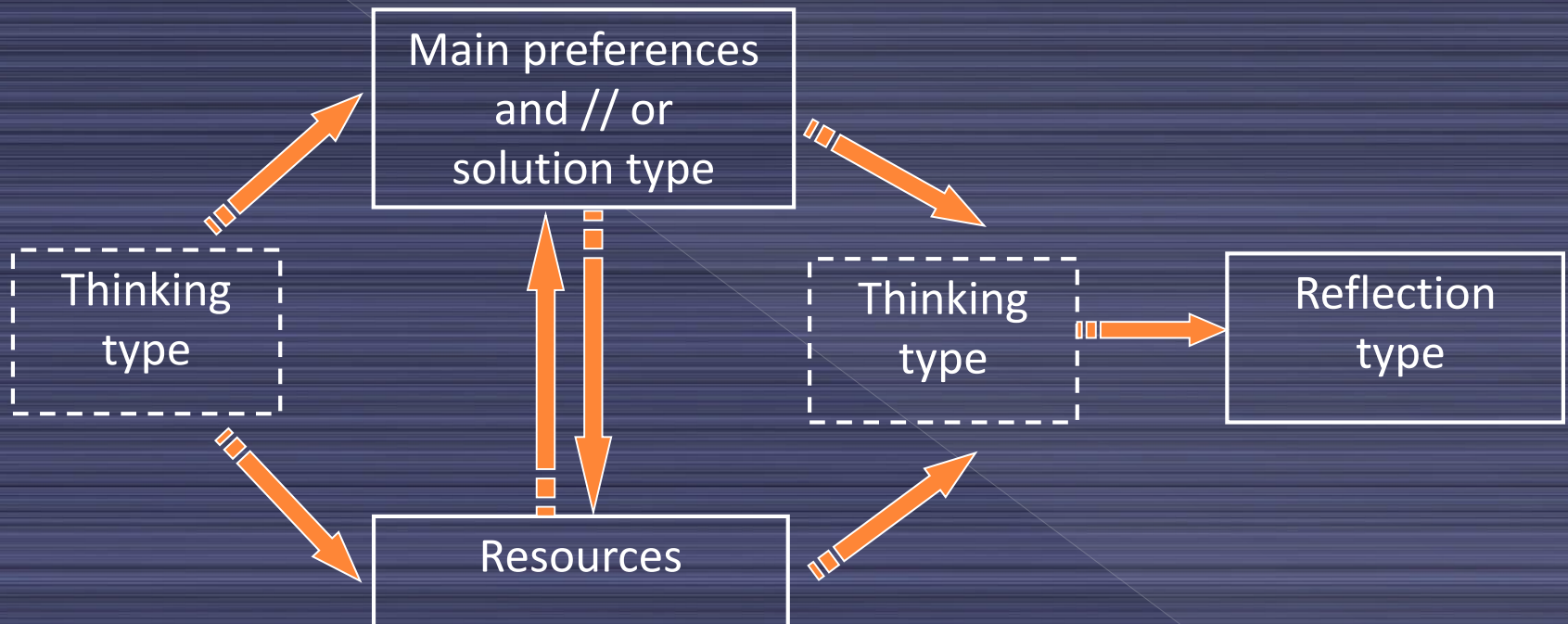
Design characteristics	Realization	Learning	Designer	Assessment
<u>Solution type</u>				
general	-0.456	0.004	0.196	-0.003
detailed	0.707	0.002	-0.005	0.131
<u>Thinking type</u>				
Abstract	-0.119	-0.393	0.746	0.0007
Concrete	0.726	0.146	-0.283	0.251
<u>Main subject</u>				
Function	0.185	0.755	-0.151	-0.005
Spatial	0.136	0.740	0.105	0.007
Tools and process	-0.007	0.104	0.754	0.106
<u>Examples</u>				
Personal	-0.328	0.0002	0.418	-0.286
Design	0.632	0.156	0.142	-0.302
Reality	-0.147	0.777	-0.0006	-0.248
<u>Assessment</u>				
Testing design steps	0.106	0.594	0.192	0.378
Application in reality	0.709	0.118	-0.103	0.193
Solution according to initial idea	0.003	0.003	-0.005	0.827
Personal awareness	-0.144	0.183	0.748	0.009
Solution according to problem requirements	0.222	-0.008	0.228	0.586

Analysis



Findings

Model of Solution Generation Design Behavior Profiles



Design behavior profile is Shaped by a combination of design characteristics, which generates the individual's innate way of designing.

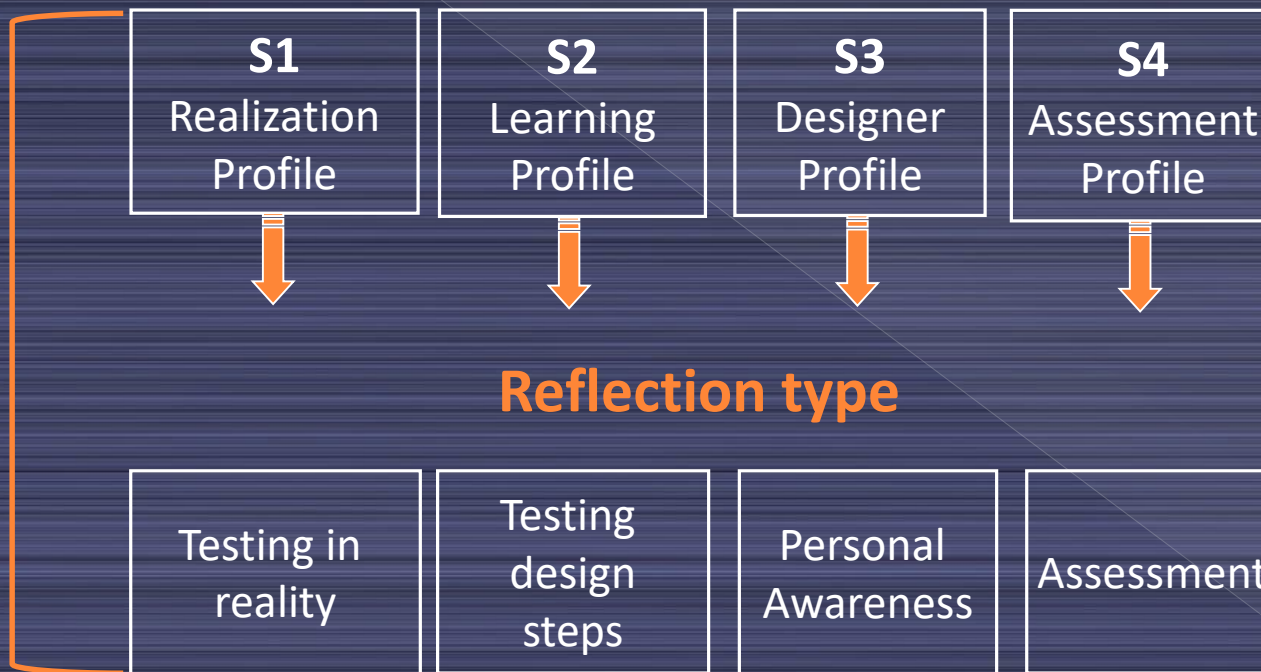
Reflection – Self Monitoring – Self Assessment

- Systematic reflection – self explanation, data verification and feedback (Ellis, Carette, Anseel and Lievens; Ellis and Davidi)
- Reflection in design (Schön)
 - reflection in action – Surprise – Aha.
 - reflection on action – On concepts and ideas.
 - reflection on practice (of design) – on habits of design activities.

Findings

4 Solution Generation Profiles

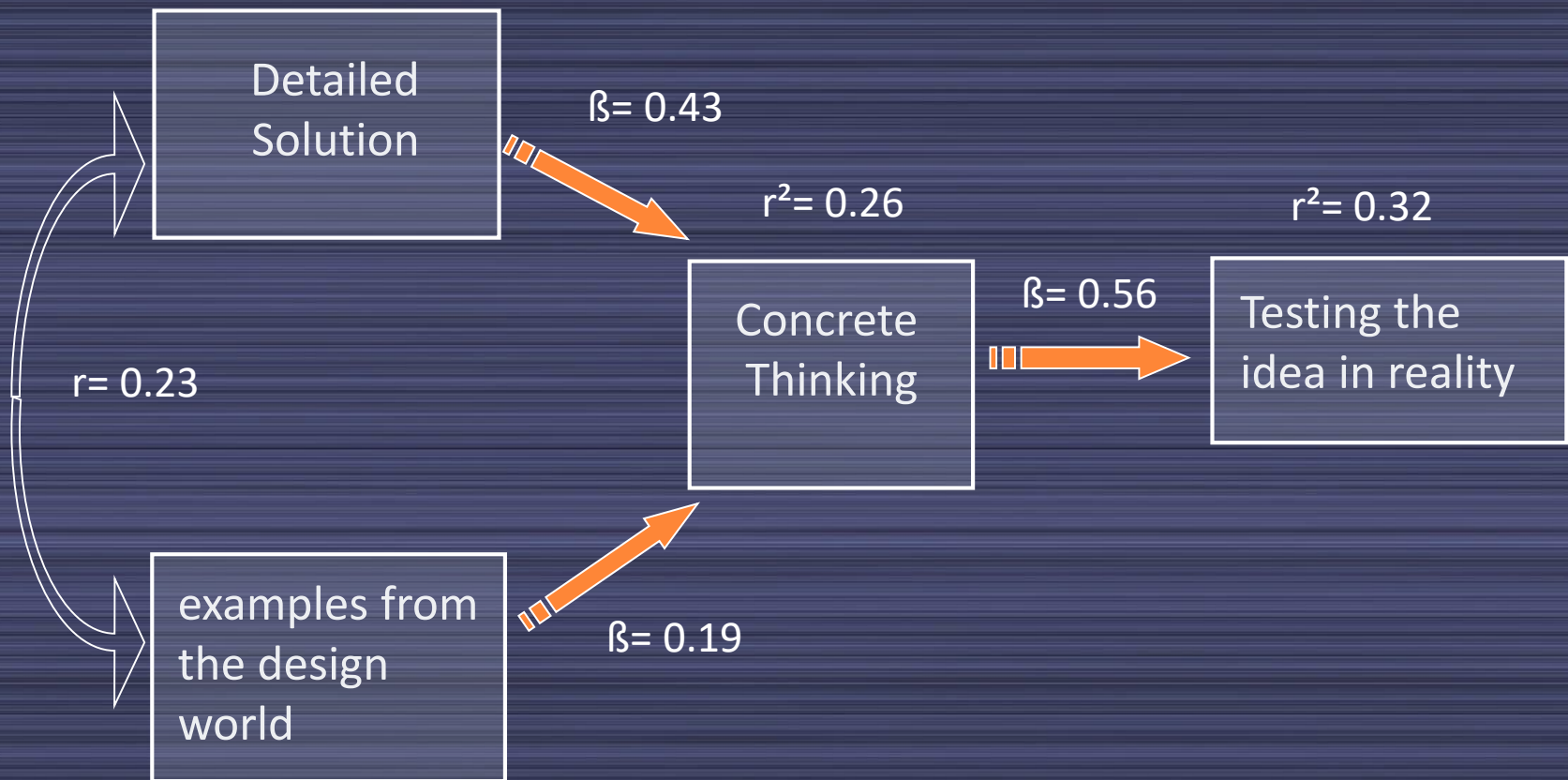
Design Behavior Profile



Solution Generation Profile

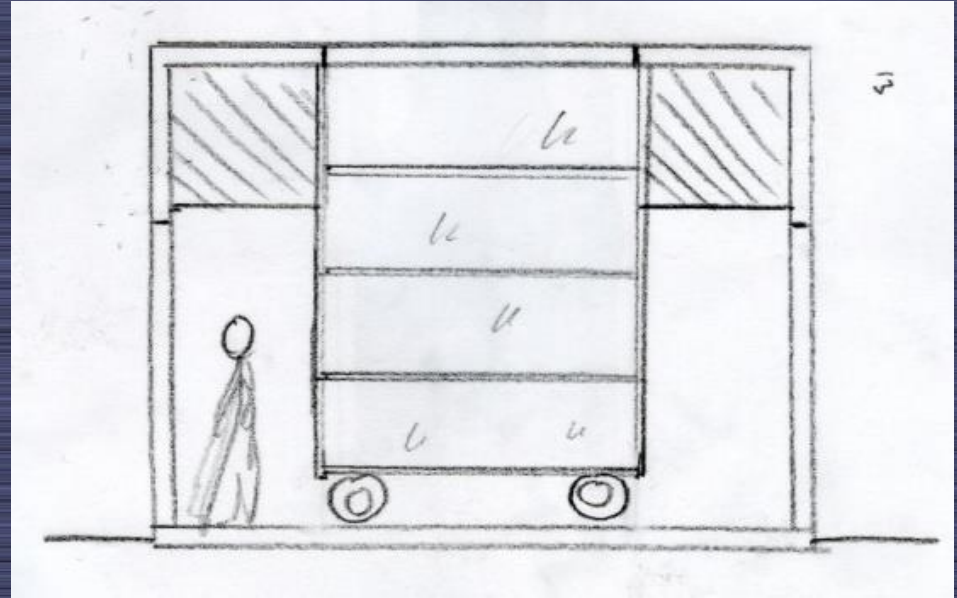
S1 – Realization Oriented Profile

Focusing on the end solution



Solution Generation Profile

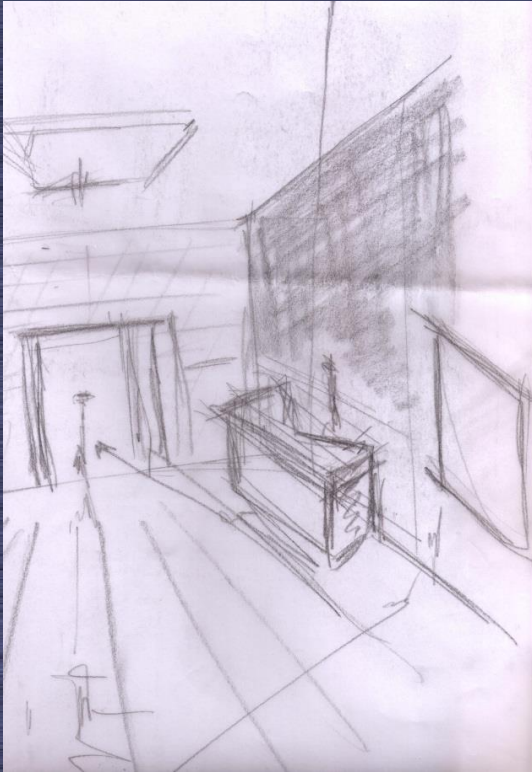
S1 – Realization Oriented Profile



"I will design it in a precise and professional manner so I can see if the ideas can withstand the test of reality"

Solution Generation Profile

S1 – Realization Oriented Profile

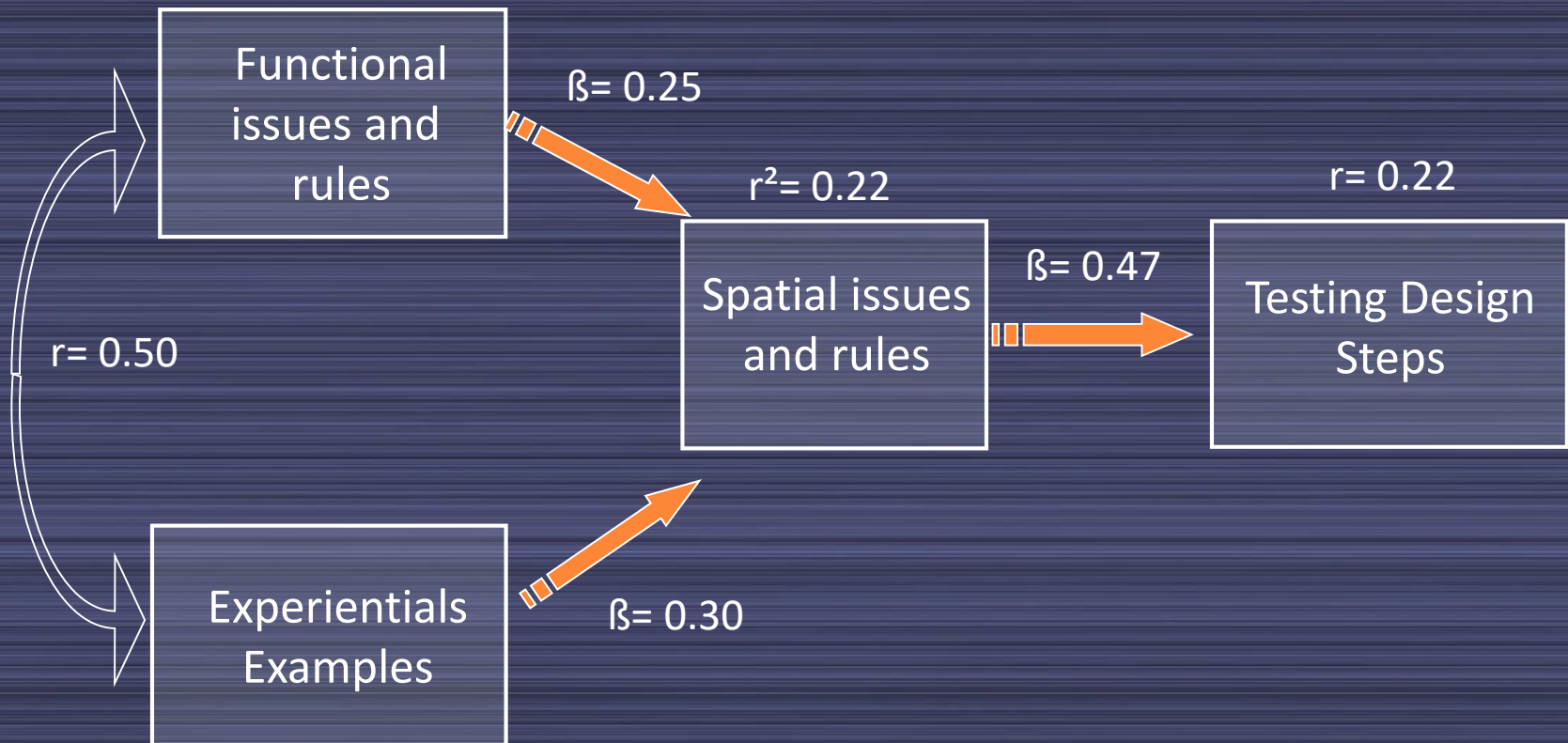


"I need to relate to the different hours of the day and how people enter the space"

Solution Generation Profile

S2 – Learning Oriented Profile

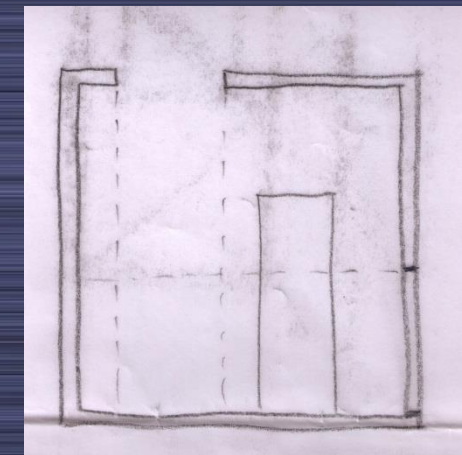
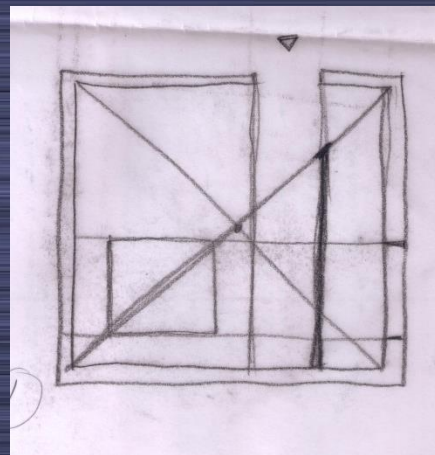
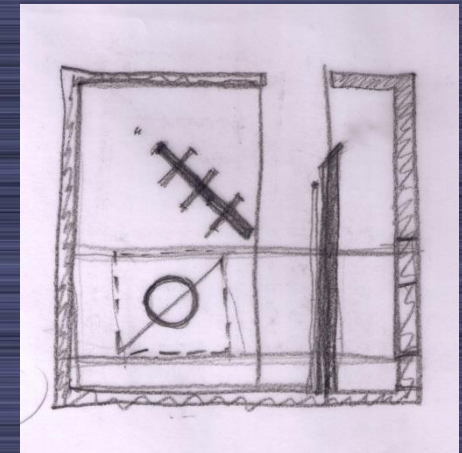
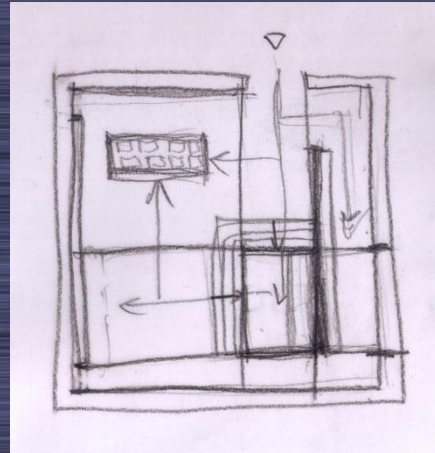
Focusing on the given problem



Solution Generation Profile

S2 – Learning Oriented Profile

"I will do a round seat, that allows him to look to all sides. He can not face only one side "



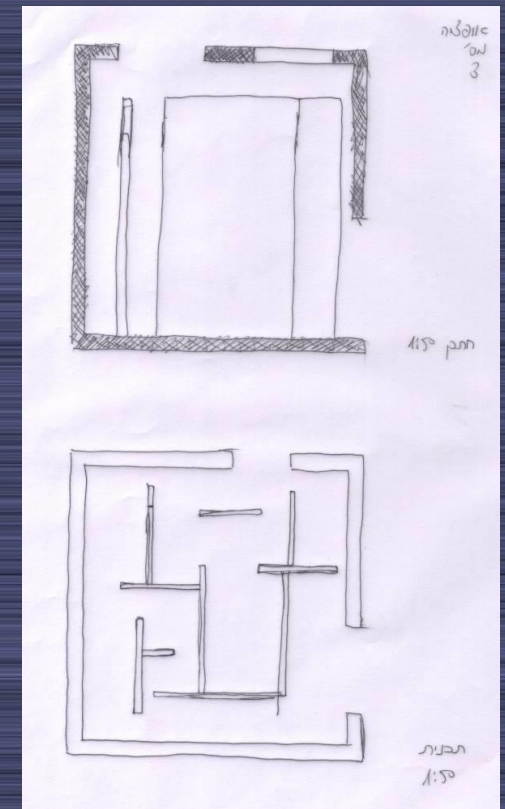
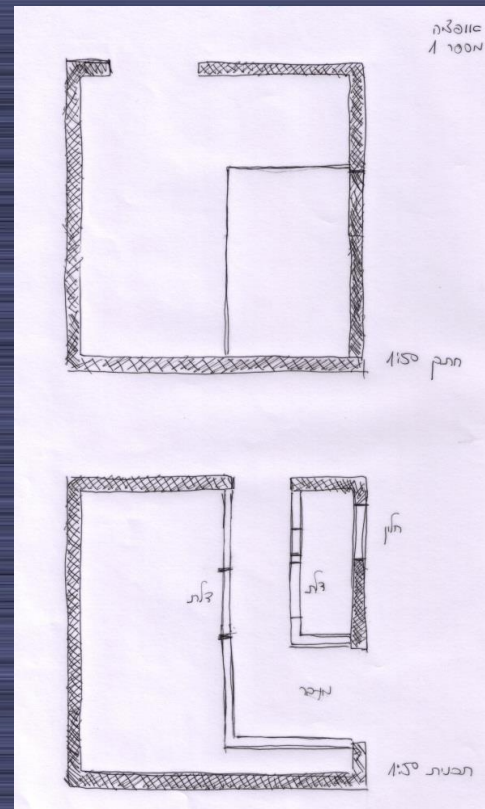
"I'm breaking the symmetry and creates a path or passage

Solution Generation Profile

S2 – Learning Oriented Profile

"I'm looking at plans, trying to figure out what else I have in this space"
(looking at the given data of the design problem) ...

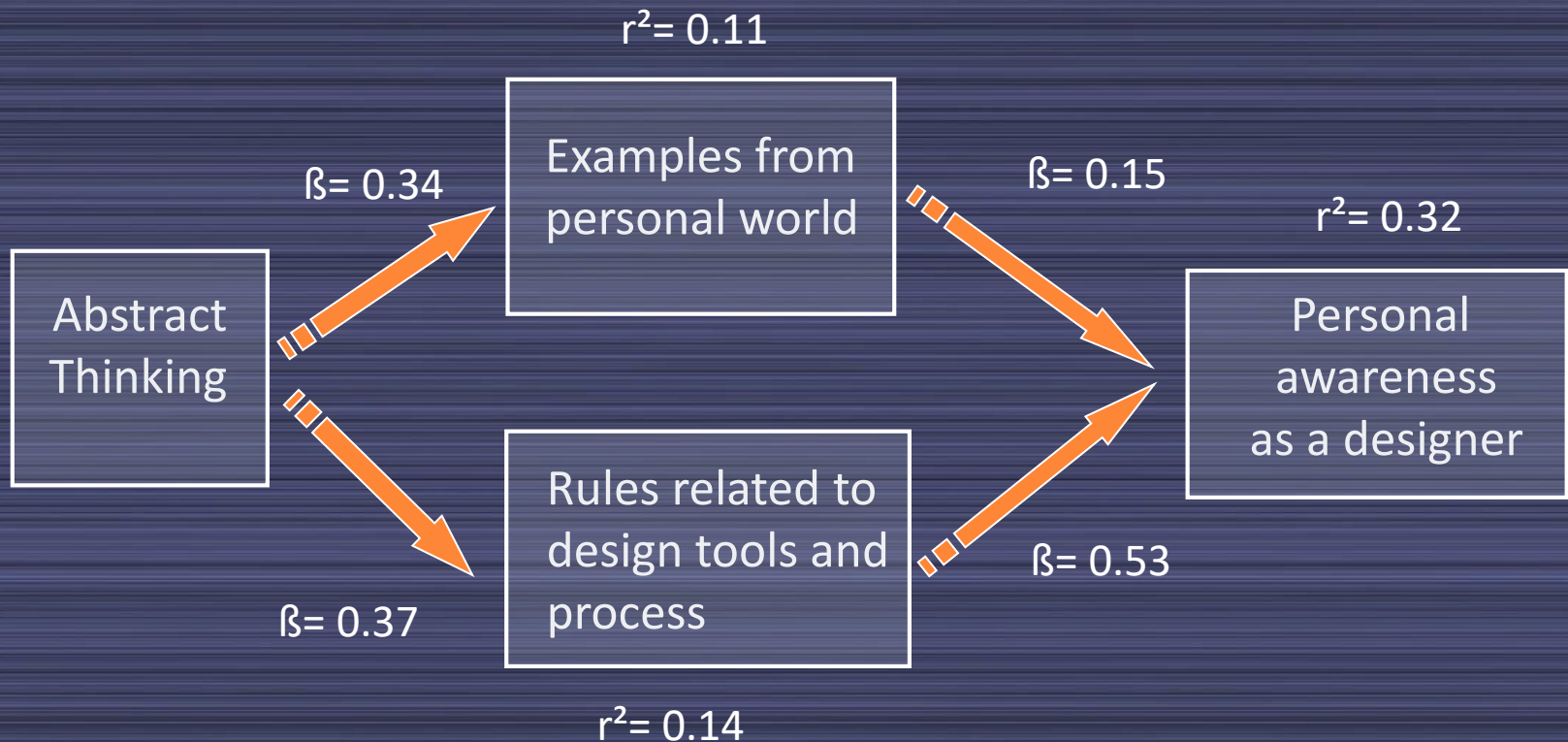
" I have to look back at all my ideas and to see if they really work within the space I designed".



Solution Generation Profile

S3 – Designer Oriented Profile

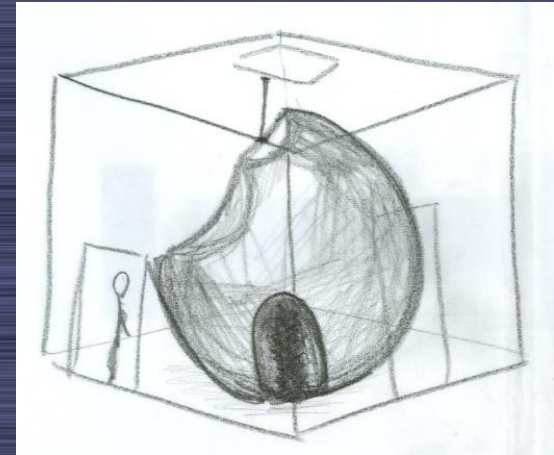
Focusing on the designer



Solution Generation Profile

S3 – Designer Oriented Profile

"I think that things are always in our heads and we need to let them out by making a model, by a sketch in order to produce from them."



"I usually start to think in section, I'm trying to express my idea in section. So I started working with layers, to see how it evolves"

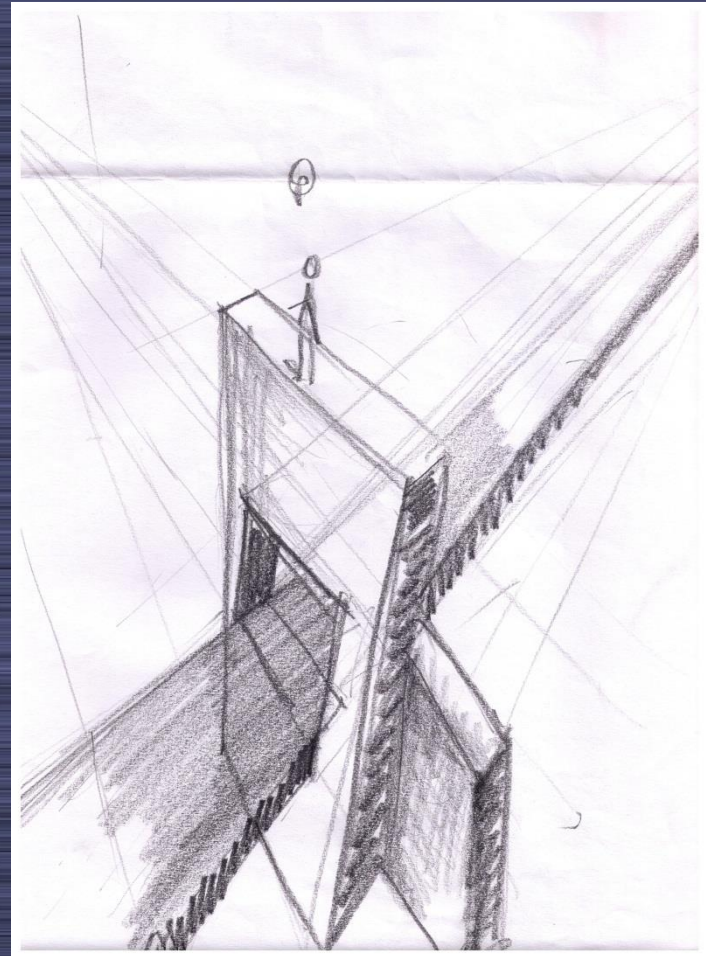


Solution Generation Profile

S3 – Designer Oriented Profile

"What I'm doing here is actually making a conceptual model and the building in the end will look entirely different."

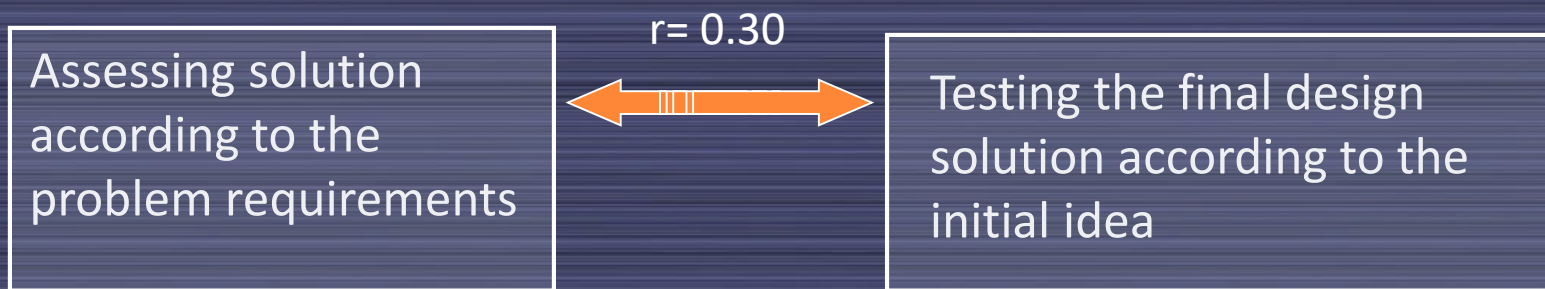
"I do things without thinking, and even if the sketch doesn't look right to me I continue to develop it so it will look nice"



Solution Generation Profile

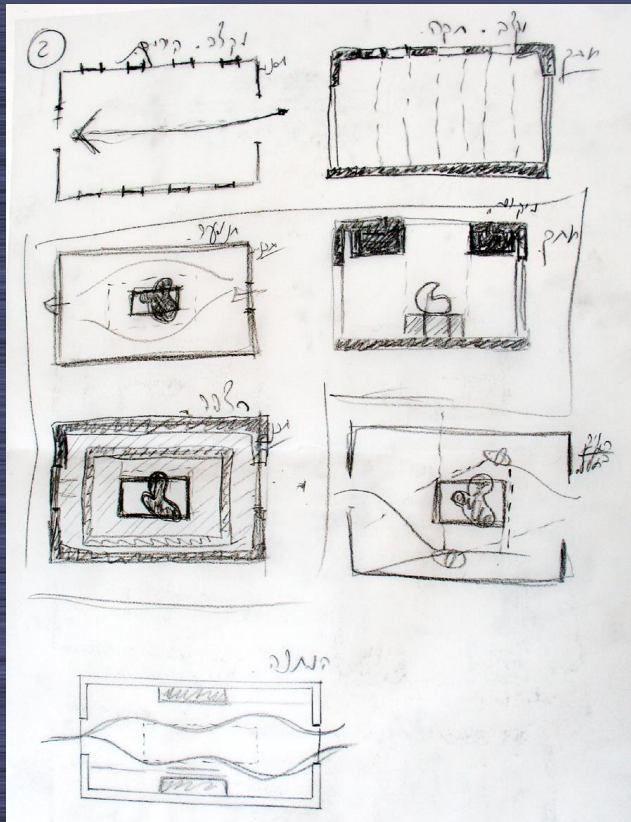
S4 – Assessment Oriented Profile

Focusing on Assessment and Evaluation

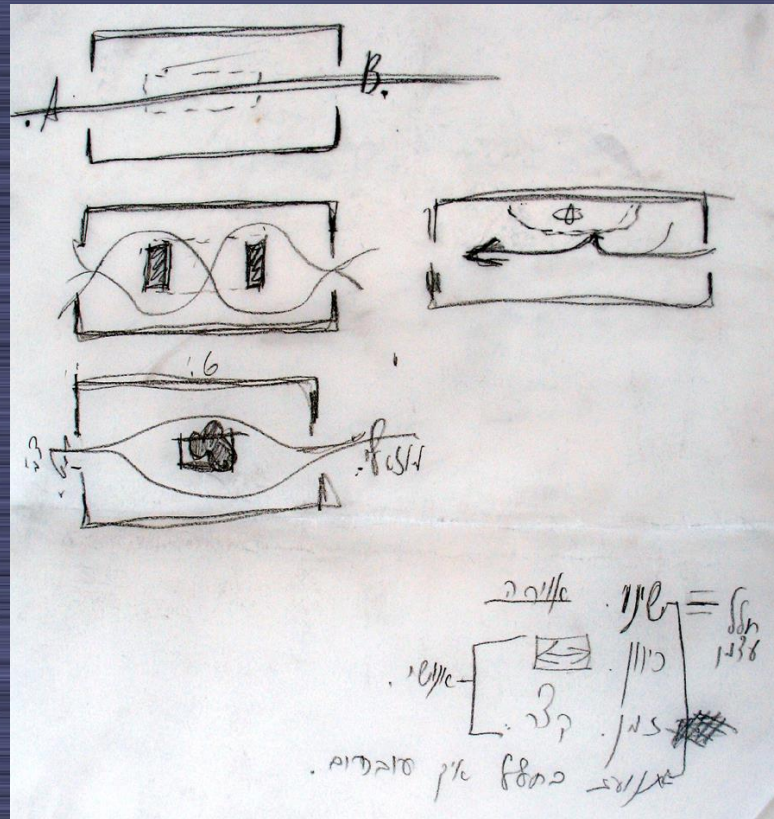


Solution Generation Profile

S4 – Assessment Oriented Profile



"a place for people to stay in for a short time."



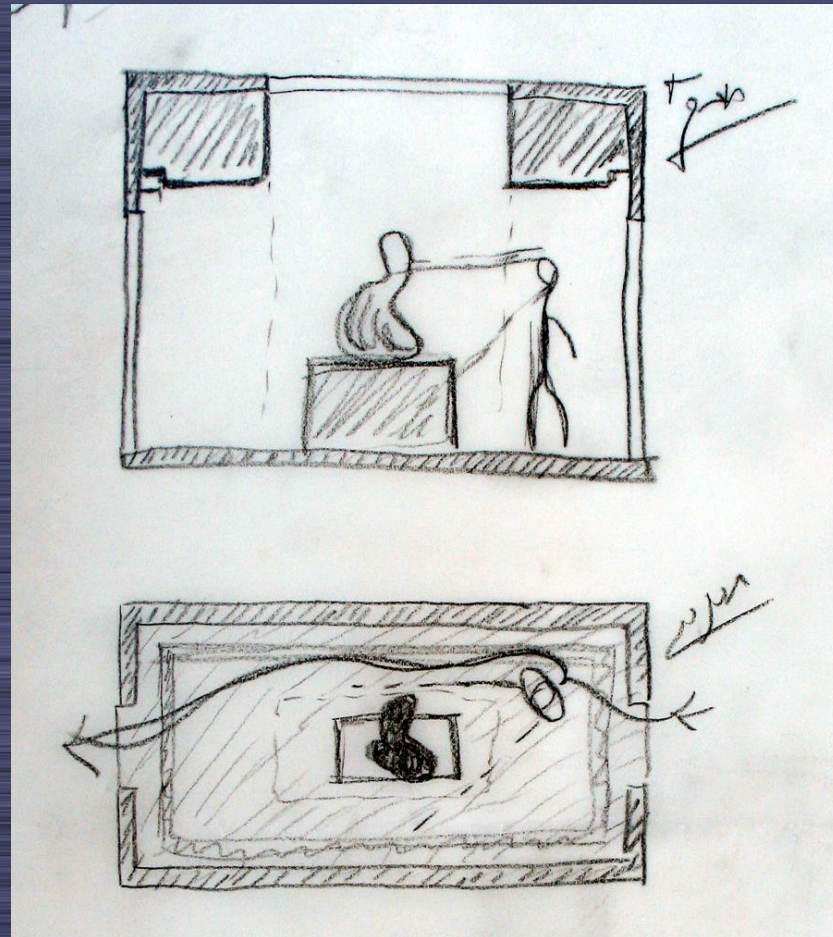
" the movement through the space must change...."

Solution Generation Profile

S4 – Assessment Oriented Profile

I have to check each alternative to my initial idea of passing through the space.

“ This is my choice
-If this is a passage,
it should stay like
this.”

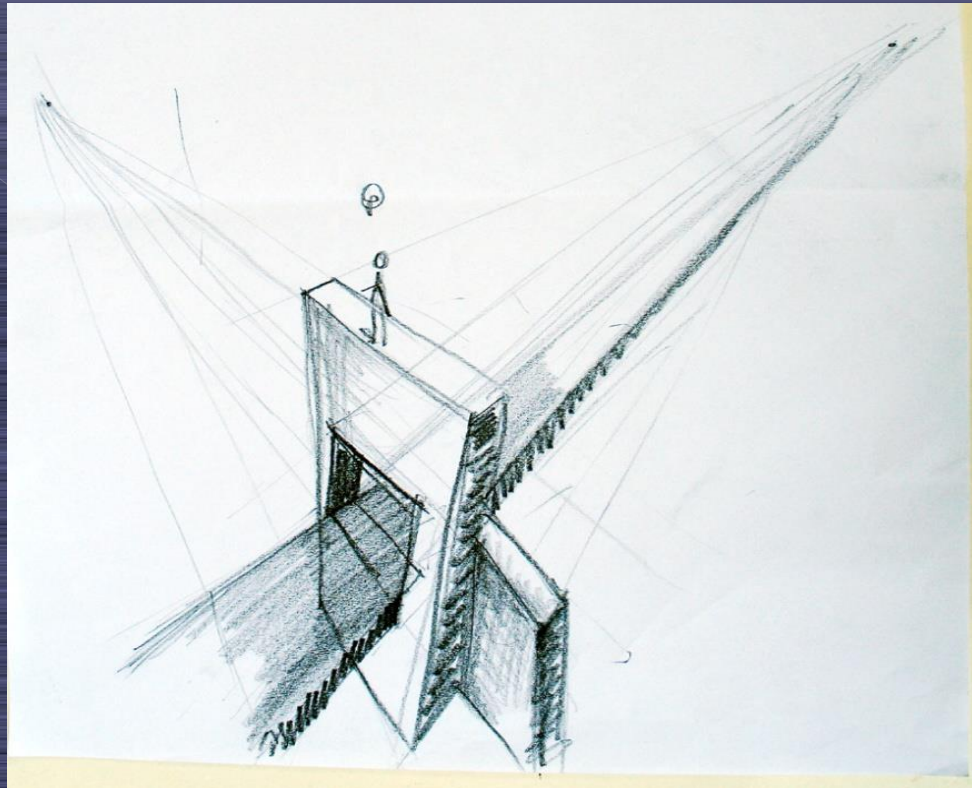


Discussion

- ◎ **Personal Approach** – focuses on the designer and his individual process of idea generation.
- ◎ **Information Driven Approach** – focuses on the given assigned problem.
- ◎ **Realistic Approach** – focuses on the end solution and its implication in reality.

Discussion

- ⦿ Reflection type is key to **differentiate between designers.**
- ⦿ Reflection type can serve as a tool for developing **design methodologies and education.**
- ⦿ There is a need for further research on the relationship between **culture and design behavior profiles.**
- ⦿ There is a need for further research on the influence of design behavior profiles and **Multidisciplinary Group Design**



Thank you

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