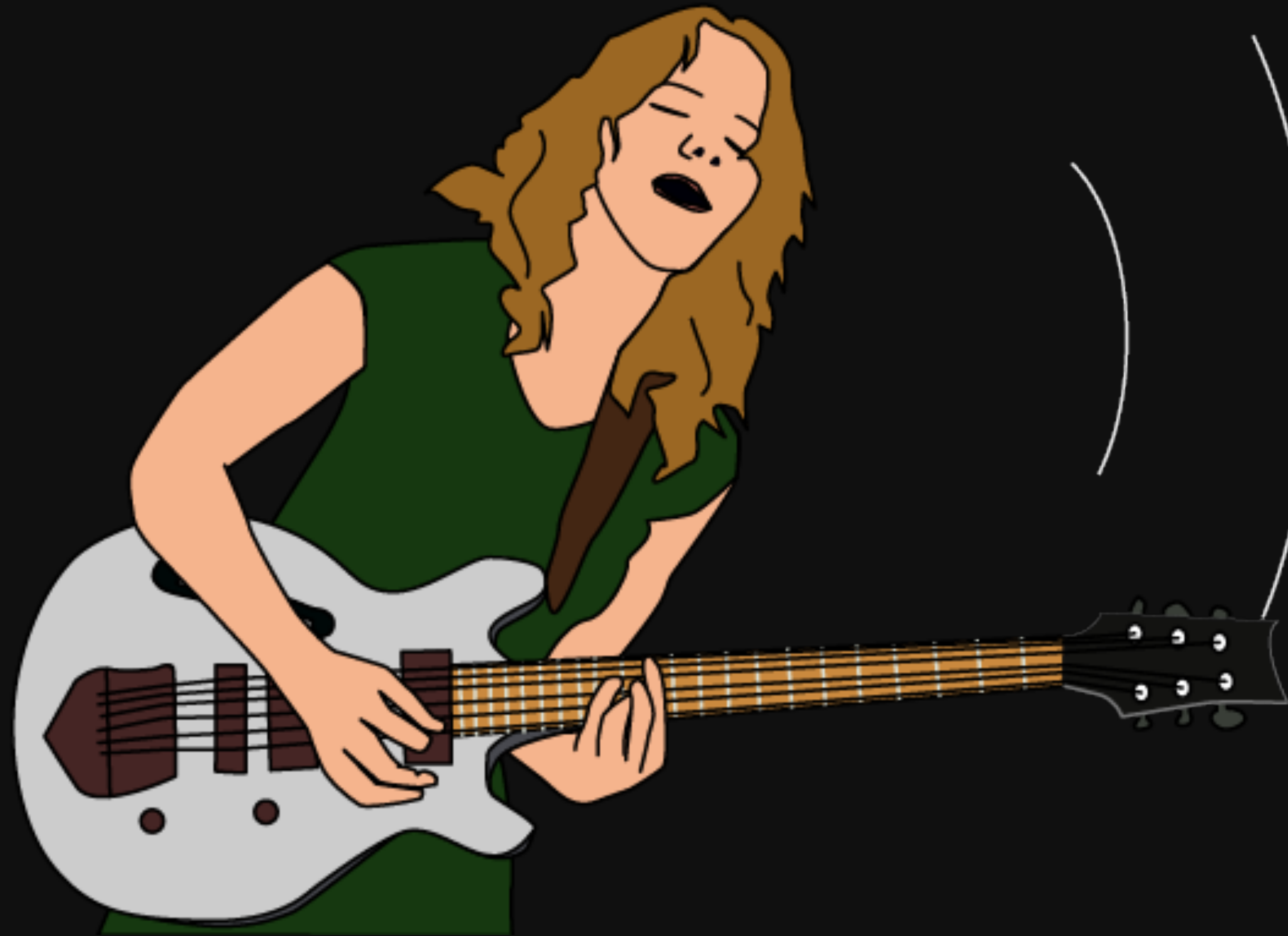


# **Methods for studying music- related body motion**

# Music-related body motion

# Music-related body motion







# Challenges

# Challenges

1. Aim

# Challenges

1. Aim
2. Subjects



# Challenges

1. Aim
2. Subjects
3. Motion

# Challenges

1. Aim
2. Subjects
3. Motion
4. Environment

# Challenges

1. Aim
2. Subjects
3. Motion
4. Environment
5. Artefacts

# Challenges

1. Aim
2. Subjects
3. Motion
4. Environment
5. Artefacts
6. Audio

# Challenges

1. Aim
2. Subjects
3. Motion
4. Environment
5. Artefacts
6. Audio
7. Video

# Challenges

1. Aim
2. Subjects
3. Motion
4. Environment
5. Artefacts
6. Audio
7. Video
8. Data handling

# Analysis

# Analysis

Descriptive



# Analysis

Descriptive

Functional

# Analysis

Descriptive

Quantitative

Functional

# Analysis

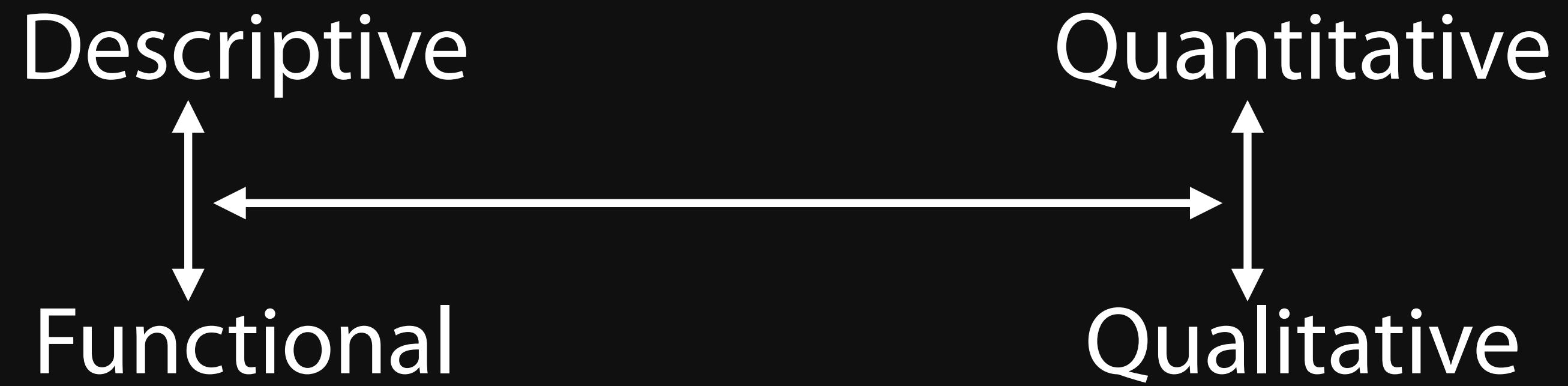
Descriptive

Quantitative

Functional

Qualitative

# Analysis



# Qualitative movement analysis

# Qualitative movement analysis



Rudolf Laban  
(1879-1958)

# Qualitative movement analysis

- Labanotation



Rudolf Laban  
(1879-1958)

# Qualitative movement analysis

- Labanotation
- Laban movement analysis

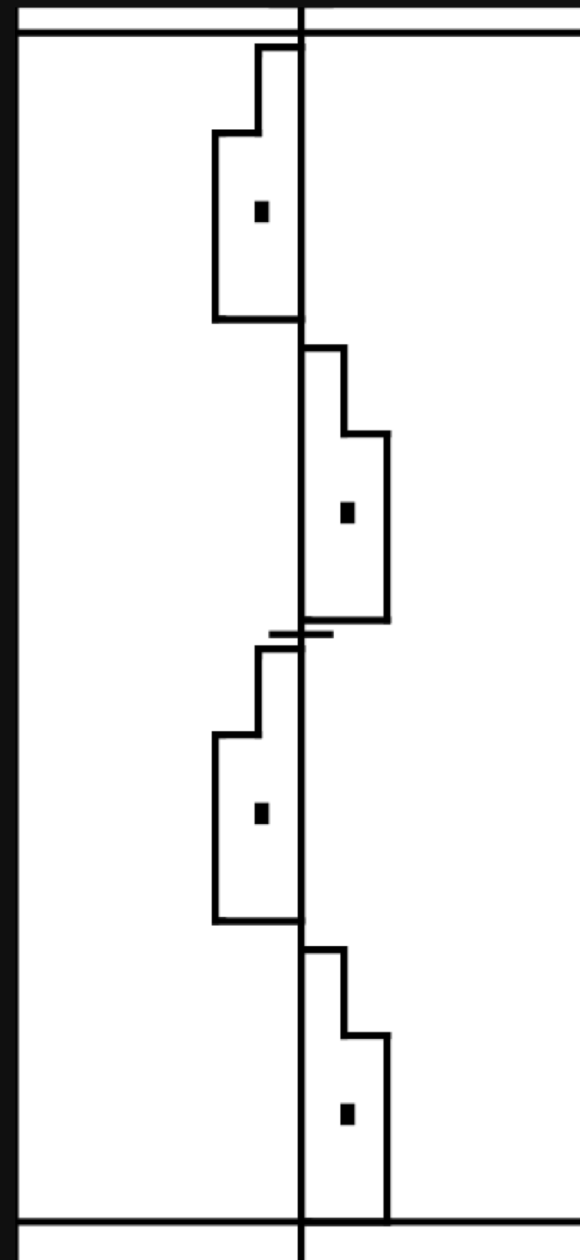


Rudolf Laban  
(1879-1958)

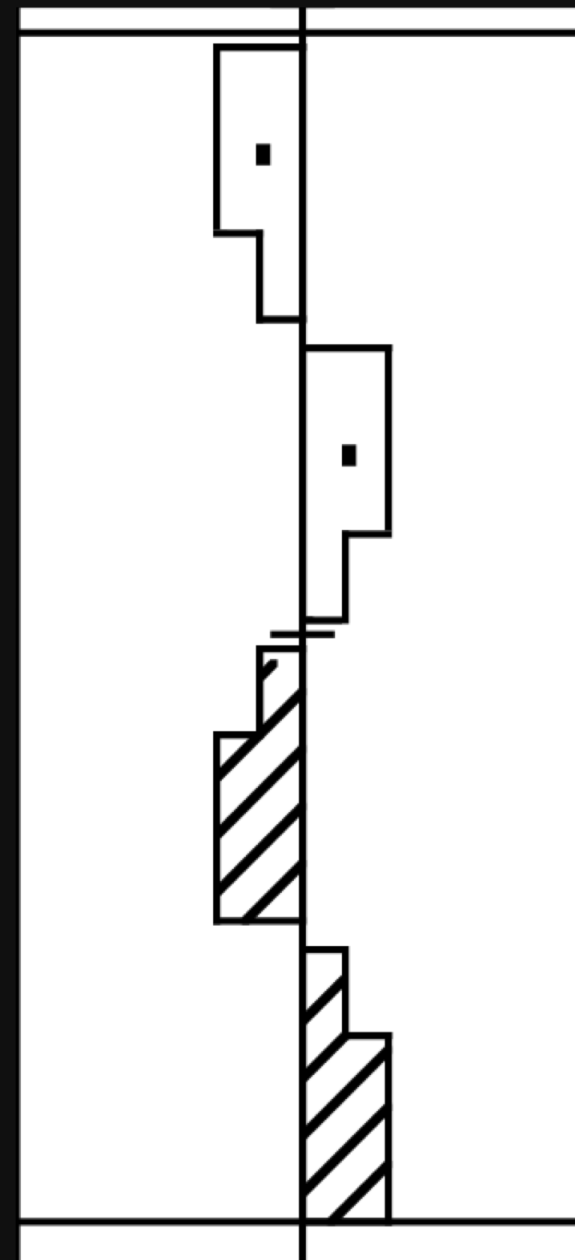


# Labanotation

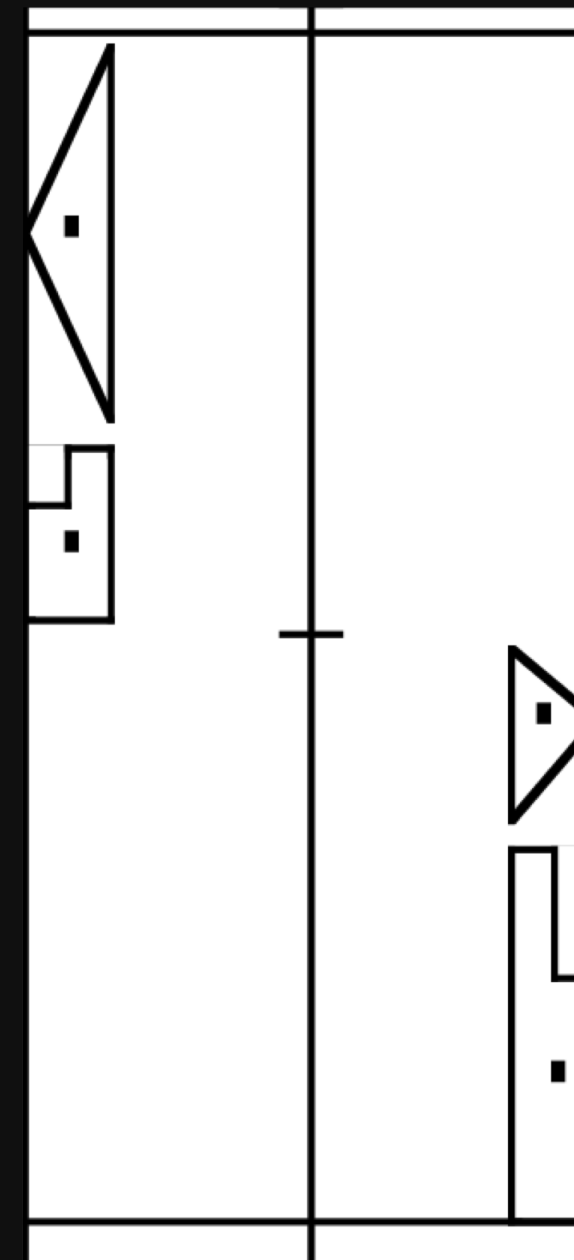
# Labanotation



a)



b)



c)

# Laban Movement Analysis

# Laban Movement Analysis

- Body

# Laban Movement Analysis

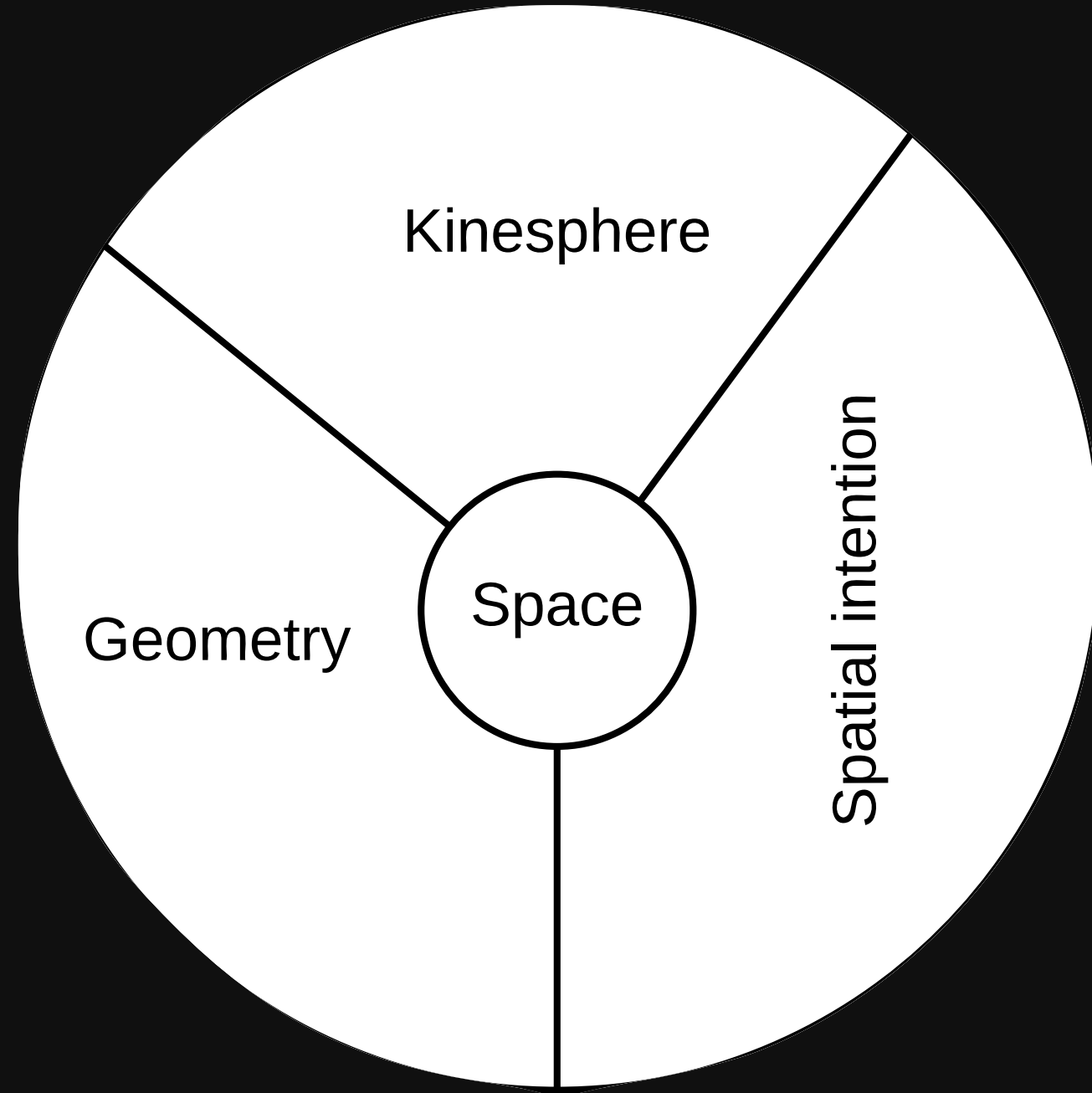
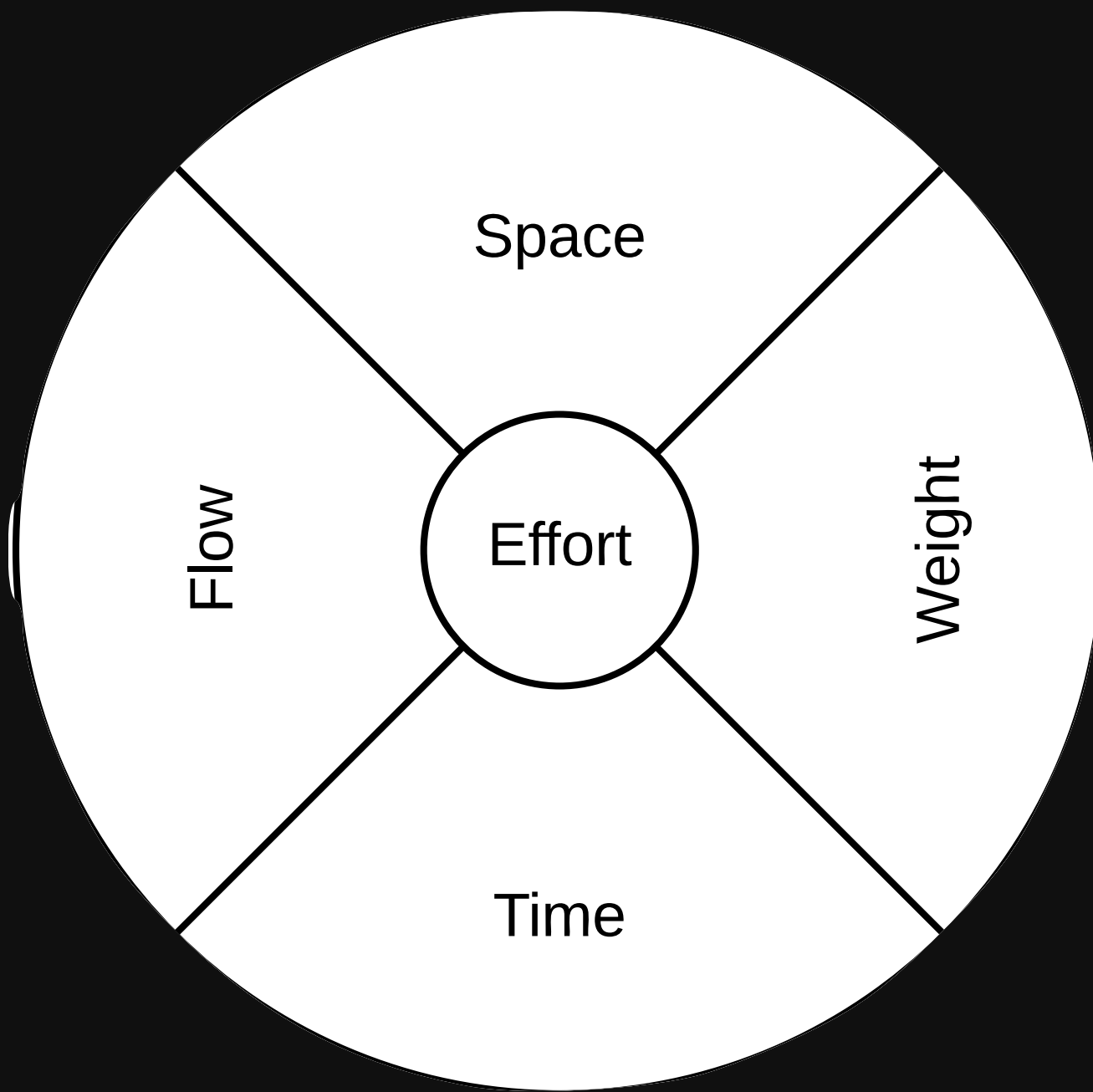
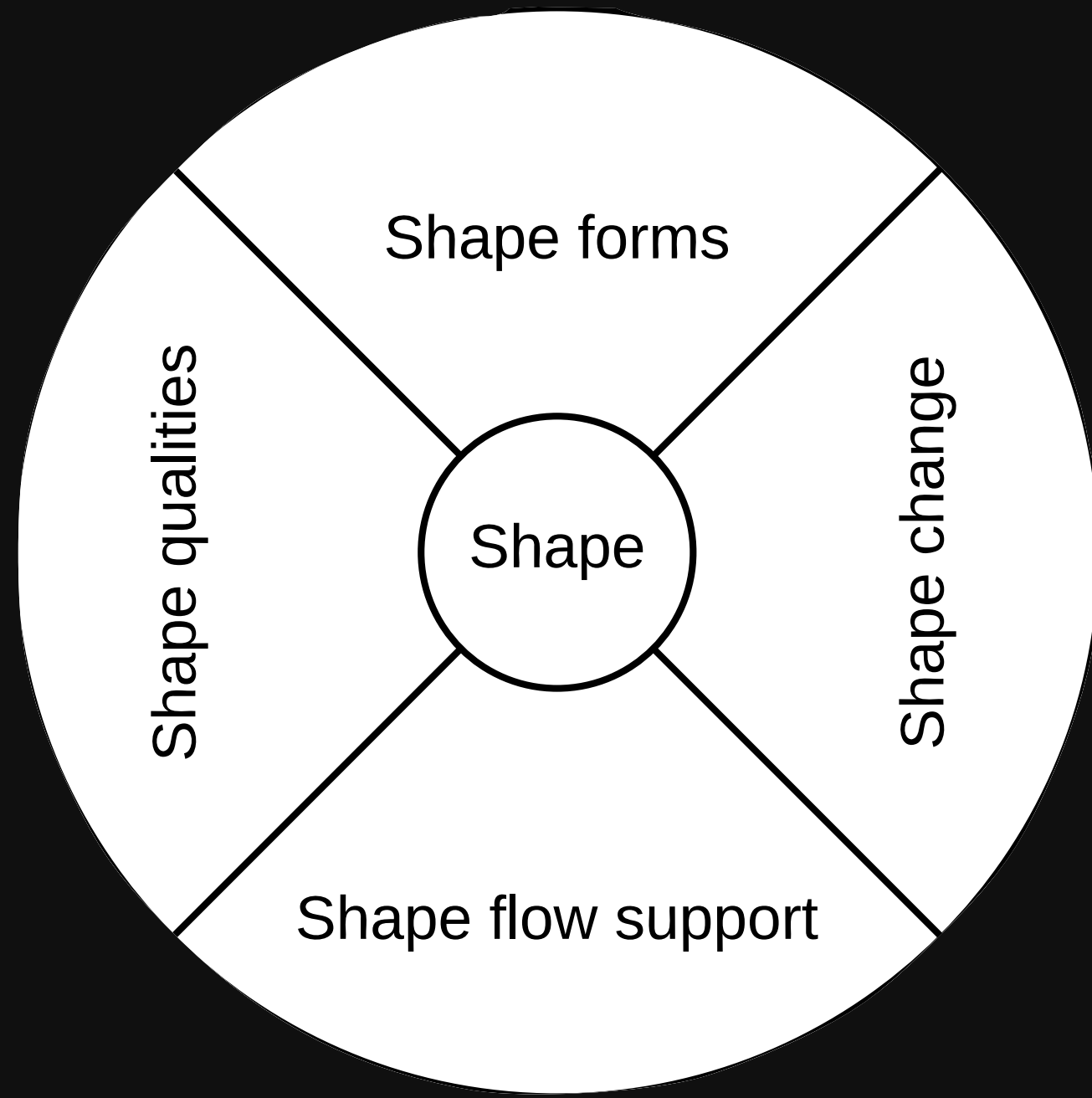
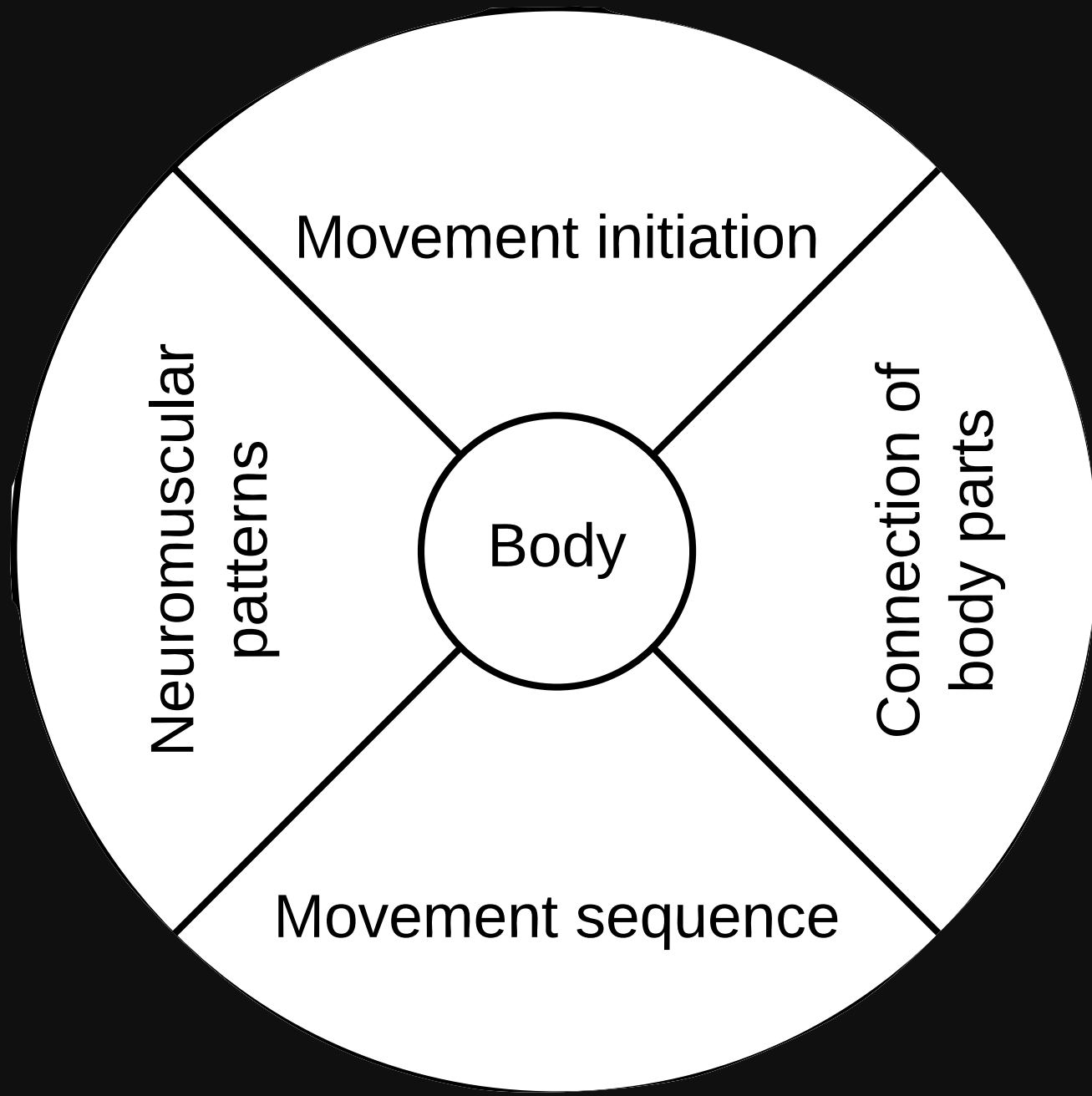
- Body
- Shape

# Laban Movement Analysis

- Body
- Shape
- Effort

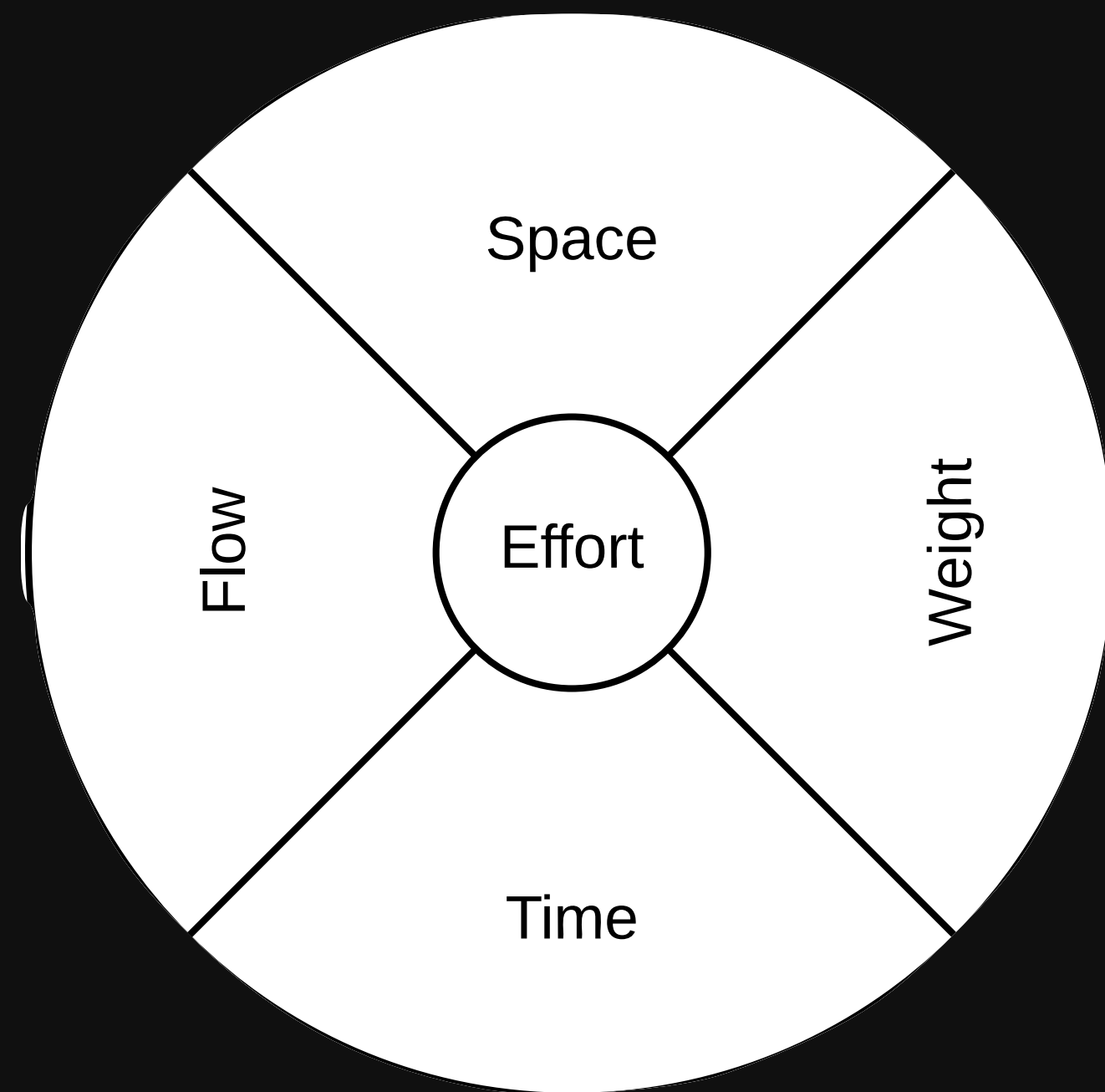
# Laban Movement Analysis

- Body
- Shape
- Effort
- Space

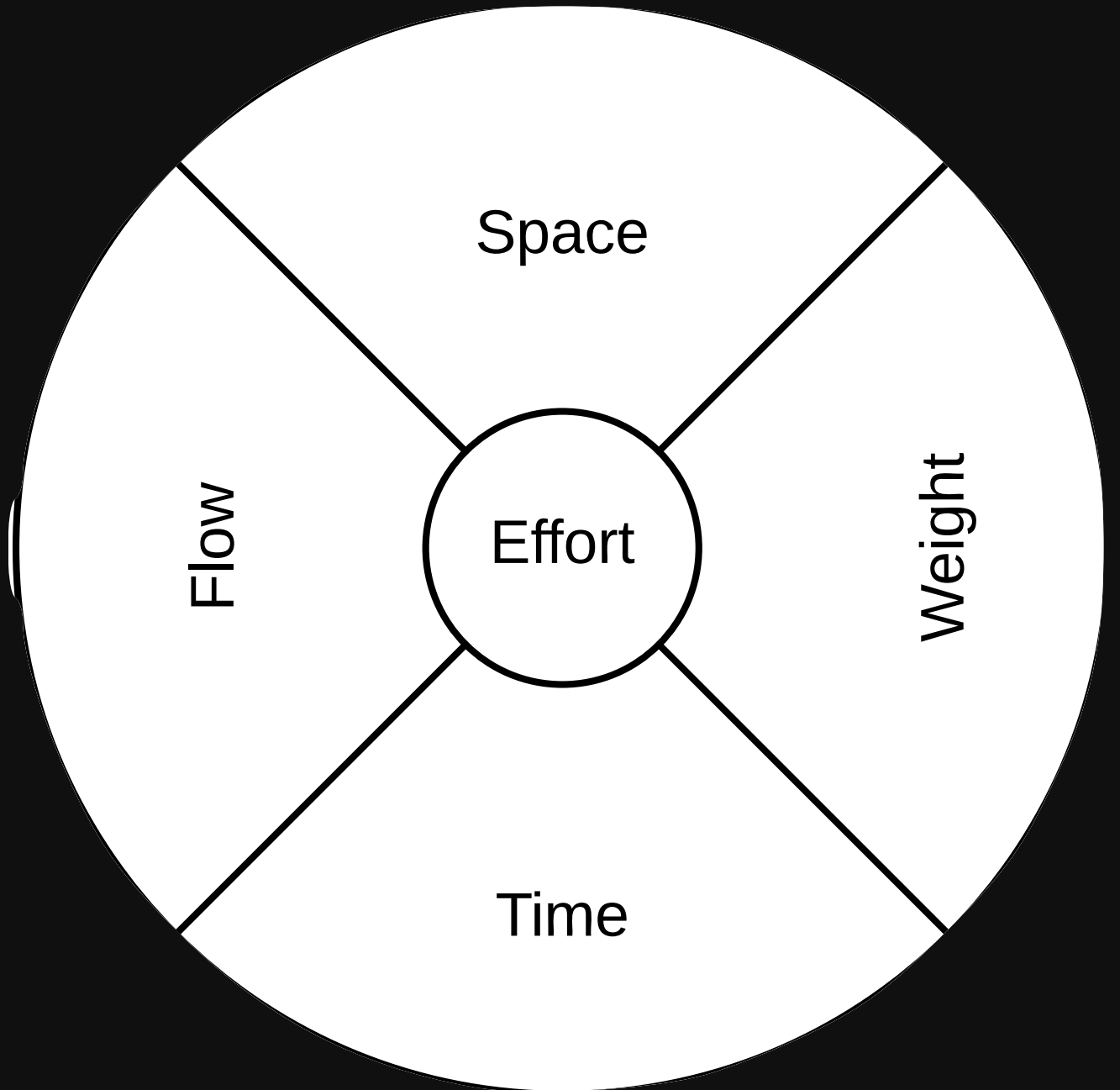




# Effort



# Effort



<b>Space</b>	Direct	Indirect
<b>Weight</b>	Light	Strong
<b>Time</b>	Sustained	Sudden
<b>Flow</b>	Free	Bound

# Quantitative movement analysis

# Motion capture

# Motion capture

- Camera-based systems

# Motion capture

- Camera-based systems
- Sensor-based systems

# Camera-based systems

# Camera-based systems

- Regular light



# Camera-based systems

- Regular light
- Infrared, depth image, etc.

# Camera-based systems

- Regular light
- Infrared, depth image, etc.
- No markers

# Camera-based systems

- Regular light
- Infrared, depth image, etc.
- No markers
- Markers

# Sensor-based systems

# Sensor-based systems

- Acoustic

# Sensor-based systems

- Acoustic
- Mechanical

# Sensor-based systems

- Acoustic
- Mechanical
- Magnetic

# Sensor-based systems

- Acoustic
- Mechanical
- Magnetic
- Inertial



# Sensor-based systems

- Acoustic
- Mechanical
- Magnetic
- Inertial
- Electrical

# Summary

# Summary

- Qualitative – Quantitative

# Summary

- Qualitative – Quantitative
- Cheap – Expensive

# Summary

- Qualitative – Quantitative
- Cheap – Expensive
- Small – Large

# Summary

- Qualitative – Quantitative
- Cheap – Expensive
- Small – Large
- Simple – advanced