OBSERVATION

BRIEF DEFINITION

"You see, but you do not observe."
- Sherlock Holmes-

"Where observation is concerned, chance favors only the prepared mind."
- Louis Pasteur-

An assessment technique whereby one observes student in his natural environments.

The **systematic** process of recording the behavioral patterns of people, objects, and occurrences as they are witnessed.

MORE DETAILED DEFINITION

Observation is a systematic data collection approach. Researchers use all of their senses to examine people in natural settings or naturally occurring situations.

Observation in a class settings often involves:

- prolonged engagement in a class or social situation
- clearly expressed, self-conscious notations of how observing is done
- methodical and tactical improvisation in order to develop a full understanding of the class
- imparting attention in ways that is in some sense 'standardized'
- recording one's observations

BASIC CHARACTERISTICS OF A GOOD OBSERVATION

Good observation is:

- Systematic
- Specific
- Objective
- Recorded immediatelly
- Verifiable

6 differences between ordinary teaching and observation during teaching

1) Purpose: Teacher simply does the activities, observing teacher observes te purpose of activities

2) Explicit awareness: Teacher normally filters out much of what goes on in an activity, but not as an observing teacher

3) Wide-angle lens: Observing teacher takes in a much broader spectrum of information

4) **Insider/outsider experience:** Teacher not only does the activity but also observes what people around him are doing too, so he can be „insider“ and „outsider“ at the same time.

5) Introspection: Teacher normally takes most of an experience for granted. As an observer he recflects the experience and his inner processes.

6) Record keeping: Oberving teacher takes records of his observation.

Why to use observation in teaching process?

Observation:

- allows more detailed evidence on what actually happens in classrooms
- provides one indicator of teaching quality (teaching has more impact on pupil outcomes than any other aspect of schooling)
- can be significant predictor of attainment

Advantages of observation

Observation:

- Is natural activity
- need no extra instruments
- Easy to complete (saves time)
- helps to make working hypotheses
- Is the most direct measure of behavior
- Is focused no real life data (spontaneous behavior)
- helps with in-depth understanding of a student
- Is usefull for individuals as well as groups and classroom environment
- Important part of any good assessement
- Gives you proper ground for your decissions
- Can be very flexible (teacher can change observational approach as needed)

Disadvantages of observation

- **Observation**
  - Is limited only to behavior (cannot be used to study cognitive or affective variables)
  - Is less reliable than quantitative and experimental techniques (but often more valid)
  - Requires training (can be less accurate)
  - Can not be used on every activity
  - can be done only in short periods

<u>Other disadvantages</u>

- **No control over the situation**
  - behavior does not have to occur
  - behavior could be overlooked
  - can not map internal motivation
  - complete answer to any problem can not be obtained by observation alone
- **Subjectivity + observer biases**
  - Interpretation of data can be a problem (e.g.: overinterpretation)
  - misatribution
  - Hawthorne effect, Pygmalion effect (*see slides bellow)*

Before we really start to talk about observation…
Let´s look at it from the other bank

Any school-child playing "teacher" will reproduce most of the behaviours used by most teachers

How do typical behaviours look like?

- standing in the front of a group of relatively passive onlookers (a position of authority)
- doing most of the talking (telling)
- asking questions to which they know the answers (testing)
- evaluating by passing judgements

Yet, no research base indicates that these behaviours have a payoff in terms of learning, and much indicates that they do not.

Inspiration from: https://www.cs.kent.ac.uk/people/staff/saf/dbdc/materials/observation.ppt

Types of observation

NONSYSTEMATIC x SYSTEMATIC

PARTICIPANT x NON-PARTICIPANT

DIRECT x INDIRECT

OVERT x COVERT

NONSYSTEMATIC x SYSTEMATIC

SYNONYMS: UNSTRUCTURED (NATURALISTIC) x STRUCTURED

NON-SYSTEMATIC

Simply watching and noting significant behavior, characteristics and personal interactions

Often „always“ precedes structured observation

SYSTEMATIC

Observing one or more precisely defined behaviors. Measuring behavior in certain way

PARTICIPANT x NON-PARTICIPANT

PARTICIPANT

- variant of unstructured observation
- observer is part of the group

Typical observation during the teaching process

NON-PARTICIPANT

- can be variant of either structured or unstructured observation
- observer is not involved in behavior
- **Strengths:** Data can be collected in precise and systematic way
- **Weakness:** some relevant ehaviors may be hidden, understanding of behavior observed may also be limited

DIRECT x INDIRECT

DIRECT

- Observation of an event when it takes place
- Flexible observation that allows observer to see and record subtle aspects of events and behavior as they occur
- Observer is also free to shift places, change the focus of observation, etc.

INDIRECT

- Does not involve physical presence of observer (recording done by mechanical devices)
- Also can be focused on observing the effects or results of the behavior rather than the behavior itself (e.g. Archives, physical traces). Example can be: Wear and tear of a book indicates how often it has been read.

COVERT X OVERT

SYNONYMS: DISLOCED X UNDICLOSED

DISQUISED X UNDISQUISED

Covert

= real identity and/or purpose are kept concealed from the group

Overt

= true identity and/or purpose are revealed

Process of observation

Planning – first step of observation

Observer should carefully examine the relevance of observation to the data needed

Decide the observation content : specific conditions, events and activities that have to be bserved to require data

For each variable chosen the operational definition should be specified

Before the observation observer must specify:

Subjects to be observed

Timing and mode of observation

Recording procedure

Recording instruments

Recording the observation- examples of some procedures

1) Event sampling

The observer decides in advance what type of behaviour (events) he is interested in and records all occurences.All the other types of ehaviour are ignored.

2) Time sampling

The observer decides in advance that observation will také place only during specified time periods (e.g. 5 minutes every hour, 1 hour per day) and records the occurence of the specified behaviour during that period only.

3) Instantaneous (target time) sampling

The observer decides in advance the pre-selected moments when observation will take place and records what is happening at that instant. Everything happening before or after is ignored

Guidelines for Note-taking

Don’t rely on memory alone. If complete field notes not feasible, use jotted notes and then write field notes. Take notes in stages. Record everything possible

Observational techniques
Event sampling – systematic observation

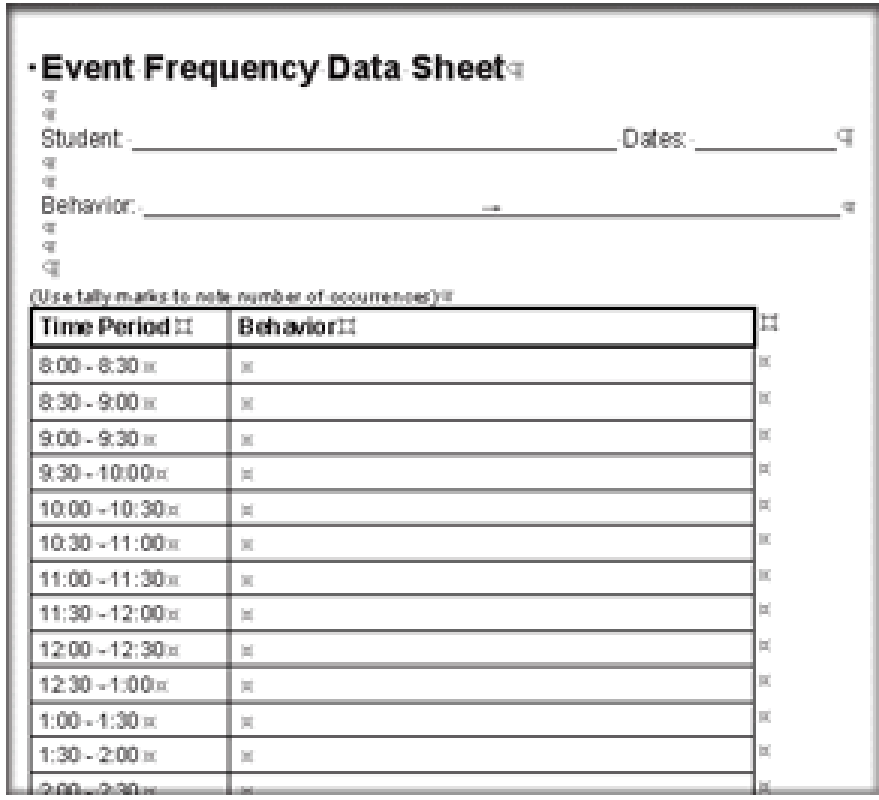
How many times did the specific behavior/event cccured (how many times did student stop doing his work; raises his hand)

TALLY SHEET

+ useful to record occasional behaviors

- events may be missed if there is lot happening at once

(you can use assistant of teacher)



Event Frequency Data Sheet

Student: _____ Dates: _____

Behavior: _____

(Use tally marks to note number of occurrences)

Time Period	Behavior
8:00 - 8:30	
8:30 - 9:00	
9:00 - 9:30	
9:30 - 10:00	
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1:30 - 2:00	

Observational techniques
Time INTERVALS

record behavior every 30 seconds

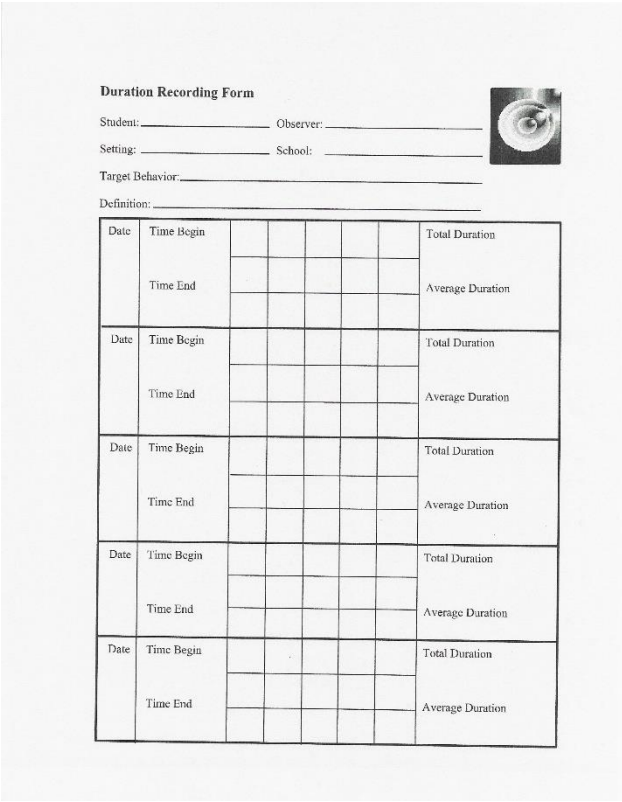
+ reduces number of observation in time period

- observed behavior may not be representative

Observational techniques
DURATION RECORDING

How long does student do something

(How long does Anna talk to other people; How long does John rocks in his seat)



Duration Recording Form

Student: _____ Observer: _____

Setting: _____ School: _____

Target Behavior: _____

Definition: _____

Date	Time Begin / Time End						Total Duration / Average Duration
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Recording the observation –examples of notes

- **Observation guides**

Printed forms that provides space for observations. They are particularly useful when several observers are involved or when you wish to obtain comparable information from several sites. The more structured the guide the easier it will be to tally the results

- **Recording sheets and checklists**

Record observations in YES/NO option (present/not present) or on a rating scale to indicate the extent or quality of something. Checklists are used when there are specific observable items, actions or attributes tto be observed.

- **Schedule**

The data requirements are identified by analyzing the core of the problem, the objectives of observation, the investigative questions, hypothesis and the operational definition of concepts and out of the data requirements, items of data to be collected through observation are identified. A schedule is then costructed, covering those items of data.

- **Field observation log**

This may take a form of diary or cards. Each item of observation is recorded udner appropriate subheading.

- **Jotted Notes**

Are used for unobtrusive observation. To record main observations, snippets of conversation, etc. Written by hand. As soon as possible after observation ends, detailed field notes are written, using jotted notes and memory as a guide.

Observation X inference

Observation

Using your senses to describe what it is you are looking at.

Inference

Assuming something is true based on observations made.

Conclusions or deductions based on observations.

The process of drawing a conclusion from given evidence.

In observation process record observations *NOT* inferences.

Inferences may be used when writing the conclusion in your observation report.

Little practice

What is observation and what is inferrence ?

1. There is a representation of a face on one side of the coin.
2. The Latin word "Dei" means "God."
3. The coin was made by deeply religious people.
4. The date 1722 is printed on one side of the coin.
5. The coin was made in 1722.
6. The face on the coin is a representation of the nation's president.

Inspiration from: https://www.kyrene.org/cms/lib2/AZ01001083/Centricity/Domain/1992/observation%20notes.pdf

Little practice

What is observation and what is inferrence ?

Answers:

1. Observation
2. Inferrence
3. Inferrence
4. Observation
5. Inferrence
6. Inferrence

Inspiration from: https://www.kyrene.org/cms/lib2/AZ01001083/Centricity/Domain/1992/observation%20notes.pdf

This image contains a picture and a word. Do you see both of them?

Inspiration from: https://www.kyrene.org/cms/lib2/AZ01001083/Centricity/Domain/1992/observation%20notes.pdf

Biases and faults of observation

OBSERVATION – COMMON MISTAKES

- wrong terminology
  - Depression X frustration
- Wrong interpretation
  - „The student was not replying to my questions, he was in opposition.“ X „The student was not replying to my questions, he was paralyzed by anxiety.“
- Overinterpretation
  - „The student does not look me in the eyes, he is not communicatting with other students and he is good at technical subjects, he has autism spectrum disorder“
- Making theories instead of hypotheses
  - „Snapshot x whole movie“
- Forgetting about our biases
  - Stereotypes, halo effect, pygmalion effect, etc.
- Forgetting that observation is also about us, not only about students

OBSERVATION SHEET – COMMON MISTAKES

SYSTEMATIC OBSERVATION

- Too broad definition of behavior
  - IMPULSIVITY X interrupts teacher, intrudes others, have difficulties waiting for turn
- Lack of theoretical background

- Too broad
  - 60 items every 3 minutes ☺

https://education.stateuniversity.com/pages/1835/Classroom-Observation.html

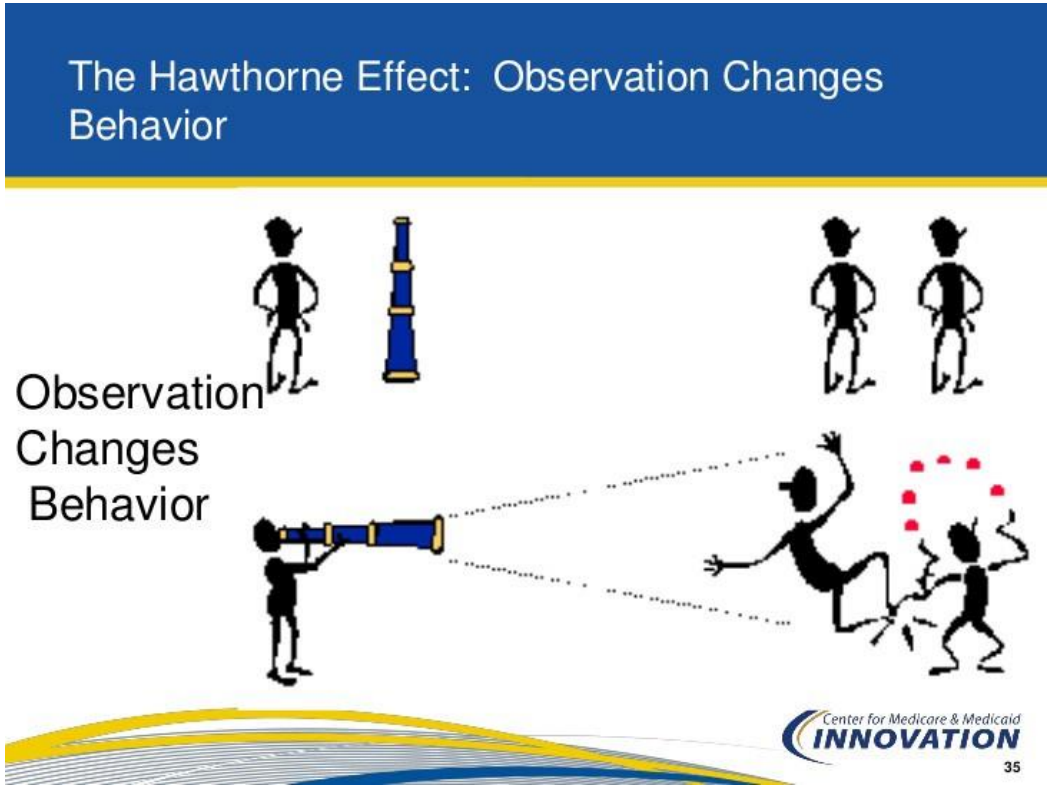
OVERINTERPRETATION

CRYING

Sitting in the corner, hands covering his eyes

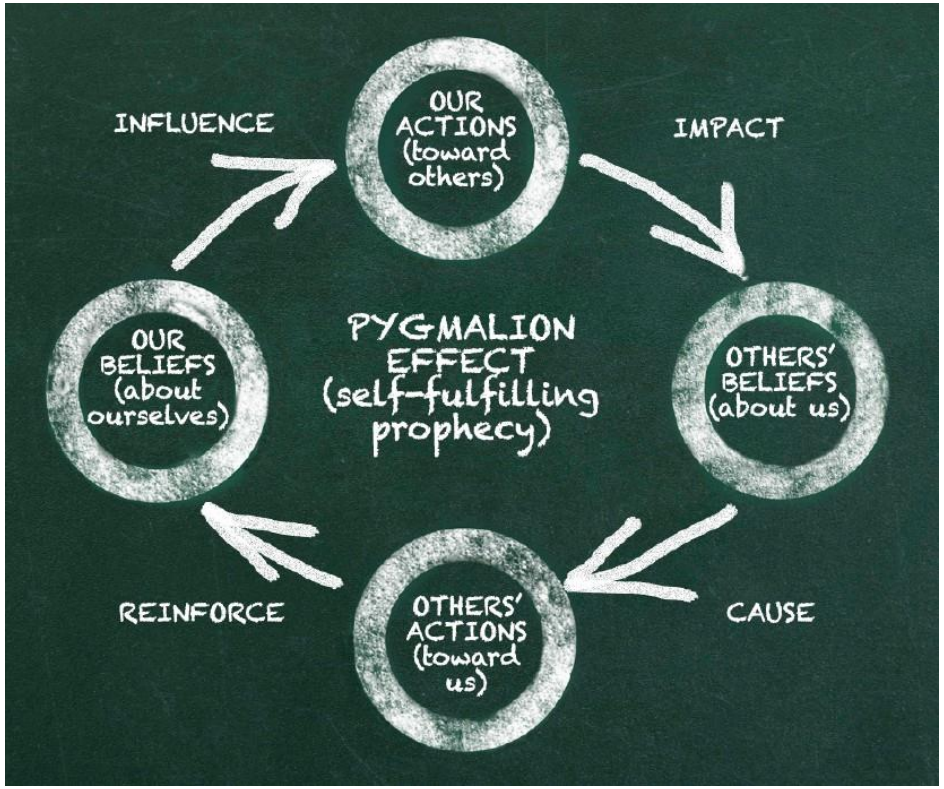
PLAY HIDE AND SEEK

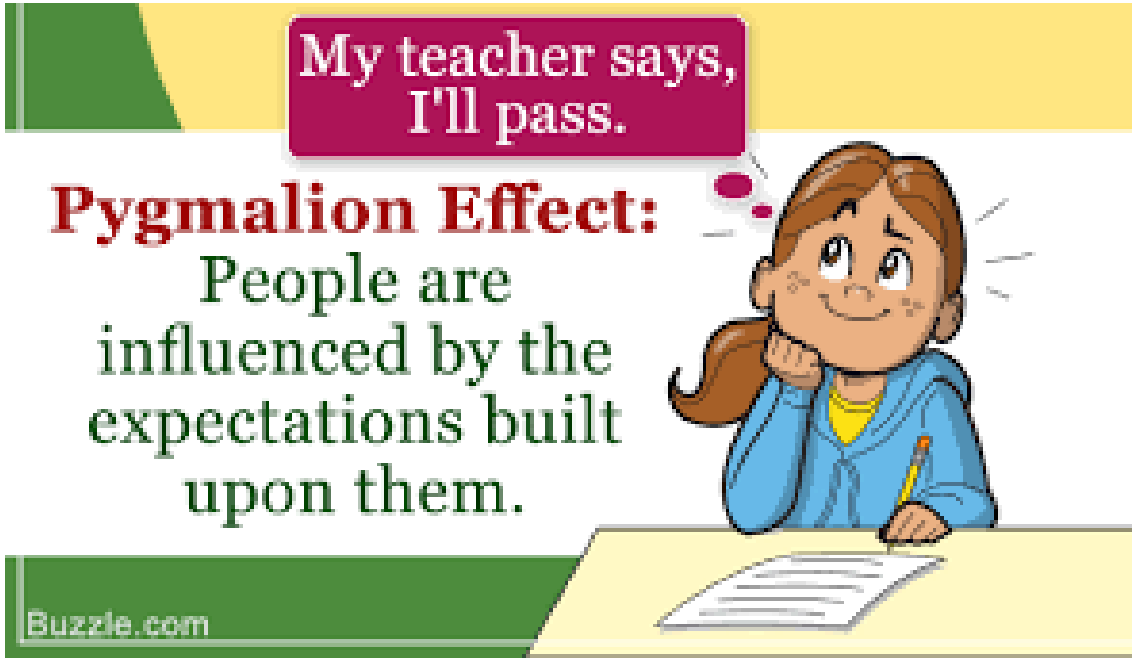
HAWTHORNE EFFECT



https://www.youtube.com/watch?v=o4XX90lqT6E

Pygmalion effect





https://www.youtube.com/watch?v=4aN5TbGW5JA&t=64s

Golem effect

Last but not least…a little bit of theory

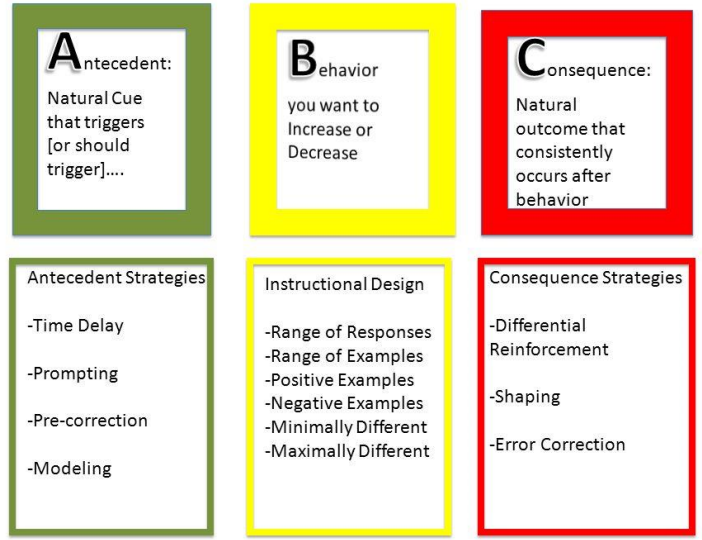
A – B – C

Allows insight into cause and effect by detailing what occured before a behavior took place the behavior itself and consequences or events that occured after behavior

A – Antecendent

B – Behavior

C - Consequence



Ecological assessment

Why child can get the diagnoses of conduct disorder only if it occurs at two or more different environments?

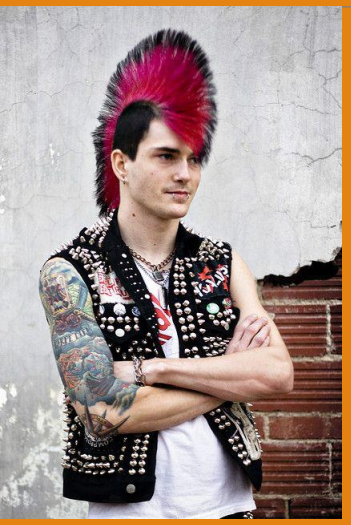
e.g.: Child is really kind and good-natured at school, gets good grades, but at home she attacks her mother, refuse to do chores, talk in bloody words, etc.

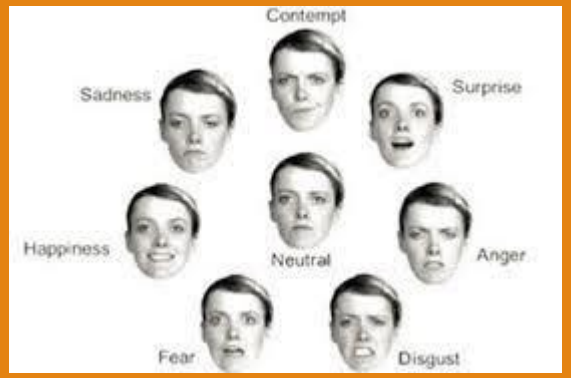
Imagine different school environments:

Classroom, playground, music class, lunch

VIDEO IS MUCH MORE THAN A PHOTO

HOMEWORK – part A
NONSYSTEMATIC OBSERVATION OF A CHILD





Homework A specification

Subject:

A) child in real life (age 6 – 15)

if not possible

B) peer in real life

if not possible

C) child from a video that can be shared with teacher

Homework A specification

Observation – template

- **Introduction**
  - (approx. 3 lines) Introduction of the child, circumstances of the observation
- **Aim of an observation**
  - (approx 3 lines) Describe the goal of your observation
- **Observation**
  - (approx. ½ page)
  - A record of the child´s observation during the interview
- **Discussion & conclusion from the observation**
  - (approx. ½ page) what are your working hypotheses from observation, what can be done better next time

What can you observe to make working hypotheses about a child ?

BODY APPEARANCE

BEHAVIOR DURING INTERACTION

SPEACH AND LANGUAGE

COGNITIVE FUNCTIONS

EMOTIONAL BEHAVIOR

SOCIAL BEHAVIOR

WORKING BEHAVIOR

BODY APPEARANCE

- body constitution (height, weight)
- Physiognomy
- Face expression
- Haircut
- Style of clothing
- Way of holding the body
- Way of moving

BEHAVIOR DURING INTERACTION

Mimics (face expressions and their changes, adequacy)

Gestures

Speed of reactions

Psychomotoric pace

SPEACH AND LANGUAGE

Speed

length of sentences

slang

speech defects

intonation and melody

active vocabulary

pasive vocabulary

Voice timbre

Cognitive functions

Attention

Memory

Executive functioning

Visuomotoric coordination

Psychomotorics

vnímání

EMOTIONAL BEHAVIOR

Mood (happy, sad, angry, anxious, embarrased)

Tension

Changes in mood

SOCIAL BEHAVIOR

Reciprocity (asking questions back, empathy, reacting on a communication partner)

Activity

Acting toward authoritites

Acceptance/ ignorance of authority, respecting of instruction, fear, indifference, intolerance, aggresivity, negativism, faith, signifficant differences between various teachers, an effort to please

Behavior towards peers

friendly, conflicts, aggresivity, tolerance, indifference, credulity, helping, contradiction

Position in group: - leading/subordinate, isolation, loner, popularity, submisivity

WORKING BEHAVIOR

Amount of activity

Working motivation

Interest

Cooperation

Need of encouragement/ control

Independence

Activity/pasivity

Focus/attention

negativism

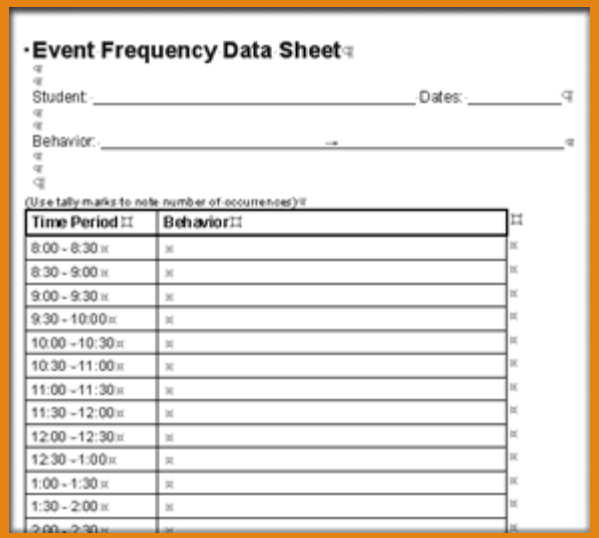
OTHER THINGS YOU CAN FOCUS ON

CONDUCT DISORDERS

SCHOOL PERFORMANCE AND GRADES

HOMEWORK – part B
OBSERVATION SHEET

Choose a specific problem from your practice and invent an observation sheet (tracking list)



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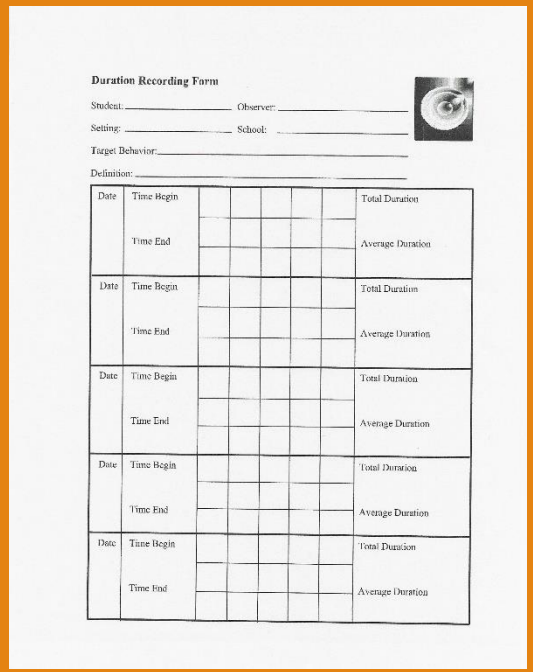

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Definition: _____

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Homework B specification

Process of observation:

Create an observation sheet and try to use it on a subject, than write a short conclusion about your experience (approx. ½ page)

Subject:

A) child in real life (age 6 – 15)

if not possible

B) peer in real life

if not possible

C) child from a video that can be shared with teacher