

Selecting Variables that Explain/Predict the Behaviour Addressed to in the Client's Question

Carmen Hagemeister & Karl Westhoff

Dresden University of Technology Dresden, Germany Assessment and Intervention

Carmen Hagemeister & Karl Westhoff - ECPA 2007



Overview

- Steps of the assessment process
- Client's question
- Assumptions
- Behaviour equation
- Selection of variables
- Formulating psychological questions



Steps of the assessment process

Client's question

Assumptions

Profile of requirements

- Psychological questions (Hypotheses)
- Detailed planning of the assessment
- Execution of the assessment procedure
- Presentation of the data
- Presentation of the results
- Recommendations and suggestions

If possible: evaluation



Client's question

11 year old boy ("Ulli") whose parents asked:

"Our son has difficulties to concentrate at school. What can be done against it?"



Assumptions

- One can use relations between variables to describe, explain, predict, and influence individual behaviour.
- These relations can be determined in empiric studies.
- Kind and strength of the relations which have been observed hold also for the present individual case.
- In order to answer the client's question one has to determine the value of the variables. Afterwards these values are combined in a suited rule.



Profile of requirements

• Literature

• Experts

• Critical incidents technique (Flanagan, 1954)

• TAToo (Koch)



Behaviour Equation

• Behaviour equation: $B = f_1$ (En, O, C, Em, M, S)

- Behaviour is a function of the following groups of variables:
 - o Environment variables (En)
 - o Organism variables (O)
 - o Cognitive variables (C)
 - o Emotional variables (Em)
 - Motivational variables (M)
 - o Social variables (S)
 - And interactions between these variables (subscript I)



Selection of environmental variables -Checklist (Westhoff & Kluck, 2003)

- Financial situation?
- Residential situation?
- Transport connections?
- Communication conditions?
- Available time?
- Other important external living conditions?





- material to work



- Financial situation?
- Residential situation?

- material to work
- room/desk at home
- room/desk at school
- noise, disturbances



Financial situation?Residential situation?

• Transport connections?

- material to work
- room/desk at home
- room/desk at school
- noise, disturbances
- time to get to school



Financial situation?Residential situation?

- Transport connections?
- Communication conditions?

- material to work
- room/desk at home
- room/desk at school
- noise, disturbances
- time to get to school
- time calling
- time of TV, PC, etc.



Financial situation?Residential situation?

- Transport connections?
- Communication conditions?
- Available time?

- material to work
- room/desk at home
- room/desk at school
- noise, disturbances
- time to get to school
- time calling
- time of TV, PC, etc.
- leisure activities
- duties



Financial situation?Residential situation?

- Transport connections?
- Communication conditions?
- Available time?
- Other important external living conditions?

- material to work
- room/desk at home
- room/desk at school
- noise, disturbances
- time to get to school
- time calling
- time of TV, PC, etc.
- leisure activities
- duties



- 1. work conditions at home and at school
 - o room, desk at home and at school
 - o undisturbed, nothing to play with
 - o materials
- 2. available time
 - o time to get to school
 - o leisure activities
 - \circ duties
- \Rightarrow Ideas for psychological questions
- \Rightarrow Information to be collected
- \Rightarrow NOT: Sources of information



Selection of organism variables -Checklist

- General ability to withstand physical strain?
- Nutrition?
- Age (differences)?
- Health impairments?
- Disabilities?
- Illnesses and injuries, including those which have not healed properly?
- Drug addiction?



Selection of organism variables -Checklist

- General ability to withstand physical strain?
- Nutrition?
- Age (differences)?
- Health impairments?
- Disabilities?
- Illnesses and injuries, including those which have not healed properly?
- Drug addiction?



Selection of organism variables -Checklist continued

Abnormalities:

- o anatomical?
- o physiological?
- o hormonal?
- o neurological?
- o sensory?
- o cardio-vascular?
- o skeletal?
- o muscular?
- o dermatological?
- Other important physical characteristics?



Selection of organism variables -Checklist continued

Abnormalities:

- o anatomical?
- o physiological?
- hormonal?
- o neurological?
- o sensory?
- o cardio-vascular?
- o skeletal?
- o muscular?
- o dermatological?
- Other important physical characteristics?



Selection of cognitive variables -Checklist

- General intelligence?
- Structure of intelligence?
- Concentration?
- Memory?
- Creativity?
- Artistic talent?
- Working style?
- Abilities in:
 - o writing?
 - o reading?
 - o basic arithmetic?



Selection of cognitive variables -Checklist

- General intelligence?
- Structure of intelligence?
- Concentration?
- Memory?
- Creativity?
- Artistic talent?
- Working style?
- Abilities in:
 - o writing?
 - reading?
 - o basic arithmetic?



Selection of cognitive variables -Checklist continued

Knowledge of: o languages? o computer work? o typing? o stenography? o other important fields? Situational conditions? • Contingencies? Positive reinforcements? Negative reinforcements? Punishments? Other aspects of perception? Other aspects of learning? Other aspects of thinking?



Selection of cognitive variables -Checklist continued

Knowledge of: o languages? o computer work? o typing? o stenography? o other important fields? Situational conditions? Contingencies? Positive reinforcements? Negative reinforcements? Punishments? Other aspects of perception? Other aspects of learning? Other aspects of thinking?



Selection of emotional variables -Checklist

- Emotional stability or ability to withstand emotional strain?
- Way of dealing with strain?
- Way of dealing with frustration?
- Way of dealing with feelings?
- Relatively long-lasting feelings of:
 - o love?
 - o jealousy?
 - o guilt?
 - o anxiety?
 - o inferiority?
 - o other?
- Emotional attachments?
- Emotional problems?
- Moods and changes of mood?



Selection of emotional variables -Checklist

- Emotional stability or ability to withstand emotional strain?
- Way of dealing with strain?
- Way of dealing with frustration?
- Way of dealing with feelings?
- Relatively long-lasting feelings of:
 - o love?
 - o jealousy?
 - o guilt?
 - o anxiety?
 - o inferiority?
 - o other?
- Emotional attachments?
- Emotional problems?
- Moods and changes of mood?



Selection of motivational variables -Checklist



- Wishes?
- Values?
- Interests?
- Attitudes?
- Convictions about
 - o goals?
 - o norms and rules?
 - o self?
 - o certain situations?



Selection of motivational variables -Checklist



- Interests?
- Attitudes?
- Beliefs about
 - o goals?
 - o norms and rules?
 - o self?
 - o certain situations?



Selection of motivational variables -Checklist continued

• Expectations?

Behavior in decision situations?

Motives like

o achievement motive?

o power motive?

o other motives?

Themes?

• Activity?

Other motivational variables?



Selection of motivational variables -Checklist continued

• Expectations?

Behavior in decision situations?

Motives like

- o achievement motive?
- o power motive?
- o other motives?

Themes?

- Activity?
- Other motivational variables?



Selection of social variables -Checklist

- Social intelligence?
- Social competencies?
- Attitudes?
- Prejudices and stereotypes?
- Norms?
- Duties, commitments?
- Influence of important others?
- Other social variables?



Selection of social variables -Checklist

- Social intelligence?
- Social competencies?
- Attitudes?
- Prejudices and stereotypes?
- Norms?
- Duties, commitments?
- Influence of important others?
- Other social variables?



Psychological question work conditions

In order to follow teaching at school a child needs a suitable environment in class and the necessary material. The child needs an undisturbed place for homework to prepare for school.

Under which conditions does Ulli work in class and at home?

- brief and easily comprehensible
- empirical regularity in behaviour
- second part of PQ refers to first part
- qualitative degree
- suitable environment in class:
 - noise

- ...

- no disturbances by other children
- fresh air

Carmen Hagem



Formulating psychological questions (= hypotheses) - Checklist

- Is the selection of a variable explained in a brief and easily comprehensible way, and well-founded on an empirical law or regularity in behaviour?
- Is there a clear connection between the selected variable and the behaviour specified in the client's question?
- If the variable is a psychological construct, is its name given?
- Does the second part of the psychological question clearly refer to the variable in the first part of the psychological question?



Formulating psychological questions (= hypotheses) - Checklist continued

- If the variable is qualitative, is the question about the qualitative degree of the variable?
- If the variable is quantitative, is the question about the quantitative degree?
- Are there no more than about 20 psychological questions?
- Are the psychological questions grouped meaningfully?
- Does each group of psychological questions contain no more than about five psychological questions?



Psychological question general intelligence

The intellectual demands at school should neither be too large nor too little for a child. If they are too large the child is not able to follow and might seem to be unconcentrated. If they are too little the child might be bored and not willing to participate and is unconcentrated.

How intelligent is Ulli compared to what school demands?

- brief and easily comprehensible
- empirical regularity in behaviour
- psychological construct
- second part of PQ refers to first part
- quantitative degree

Ulli's intelligence has to be compared to the demands at school.



Thank you for your attention!