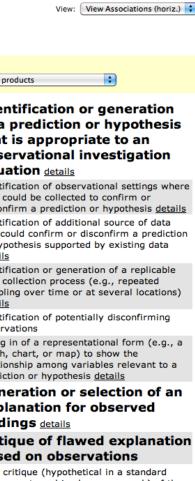


DESIGN PATTERN FOR OBSERVATIONAL INVESTIGATION – HORIZONTAL ASSOCIATIONS

View associations within <u>Design Pattern for Observational Investigation</u>



✓ Full Text | Limit text: 35 Anchor: Associated: Associated: Focal knowledge, skills, and abilities Potential observations Potential work products 및 Fk1. Ability to analyze why observational Pw1. Identification or generation 월 Po1. Appropriateness/strength of observational evidence to help investigation methods are more appropriate confirm or disconfirm a prediction or hypothesis details of a prediction or hypothesis than experimental methods for some Po2. Accuracy in identifying the effects of that is appropriate to an phenomena/situations details an observed active phenomenon and B Fk2. Ability to distinguish between observational observational investigation how these effects are consistent with a and experimental methodology details situation details Fk3. Ability to generate or evaluate predictions or posited cause and effect relationship Pw2. Identification of observational settings where hypotheses about scientific phenomena that data could be collected to confirm or are appropriate for observational Po3. Correctness of recognized pattern in disconfirm a prediction or hypothesis details investigation details 팀 Pw3. Identification of additional source of data data to support a prediction or Fk4. Ability to formulate that could confirm or disconfirm a prediction hypothesis details conclusions, create models, or hypothesis supported by existing data [™] Po4. Plausibility/correctness of explanation details and appropriately generalize 팀 Pw4. Identification or generation of a replicable for observed findings details results from observational data collection process (e.g., repeated 및 Po5. Accuracy in critiquing the observational investigation investigations details sampling over time or at several locations) methods, evidence, and conclusions of others details 월 Fk5. Ability to test predictions or hypotheses using 팀 Po6. Plausibility and systematicity of the data collection plan 팀 Pw5. Identification of potentially disconfirming observational methods details 월 Po7. Correctness of selected tools and procedures for data observations Fk6. Ability to plan a systematic collection of observational data based on a predicted Pw6. Filling in of a representational form (e.g., a Po8. Systematicity and appropriateness of collected data relationship graph, chart, or map) to show the relationship among variables relevant to a Fk7. Ability to collect, analyze, and interpret 월 Po9. Appropriateness of measurement precision prediction or hypothesis details observational data with appropriate tools [<u>+ add</u>] Pw7. Generation or selection of an [<u>+ add</u>] explanation for observed findings details Pw8. Critique of flawed explanation based on observations B Pw9. Peer critique (hypothetical in a standard assessment, real in classroom work) of the observational investigation methods, evidence, and conclusions details

Workshop Resource – AERA 2011 Page 1