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Abstrak

<b>ABSTRAK,/b>
This research examines differences in cognitive activities and final designs among expert designers using object-oriented and procedural design methodologies, and among expert and novice object-oriented designers, when novices have extensive procedural experience. We observed, as predicted by others, a closer alliance of domain and solution spaces in object-oriented design compared to procedural design. Procedural programmers spent a large proportion of their time analyzing the problem domain. In contrast, object-oriented designers defined objects and methods much more quickly and spent more time evaluating their designs through simulation process. Novices resembled object-oriented experts in some ways and procedural experts in others. Their designs had the general shape of the object-oriented experts' designs, but retained some procedural features. Novices were very inefficient at defining object, going through an extensive situation analysis first, in a manner similar to the procedural experts. Some suggestions for instruction are made on the basis of novice object-oriented designers' difficulties.