Use of structograms (aka Nassi-Shneiderman-diagrams) in class

Posted by MartinDeveloper - 2008/10/07 22:36

POSITIVE EXPERIENCE WITH NSDs:

1. Nassi-Shneiderman-diagrams (=NSD) are a great tool to visualize a program's logical structure and can thus be used for documentation of a program - a task i now and then assign to my students in order to have them think about some stuff one more time.

2. moreover, i am mainly using empty or partly empty NSDs to give the students hints of how the algorithmcould look like: as a small example, i draw a conditional loop, but they have to find the condition and/or the commands inside the loop themselves. this works pretty well when a somewhat demanding idea for an algorithm should be partly formulated by the students.

MIXED EXPERIENCE WITH NSDs:

my question is: does anyone have some (positive or negative) experience of using NSDs in the program development process ? up to now, i didnt get the impression it offers much to my students when i want them to develop an algorithm completely on their own.
it could very well be that i am using the wrong appoach and/or the wrong examples, but two explantions could be:

1. when each NSD element just replaces one line of source code, the structure of the NSD is the same as the structure of the program and thus equally difficult to develop.

2. therefore i occasionally use NSDs as a tool for "top-down"-development. a single NSD element would then be the verbal description of a task that takes several program lines, like "swap content of variables x and y" or "total = sum of array x". this somehow works, but as i usually want them to use an own function (or method), each single NSD element then replaces just the function call.

dont these two reasons make the use of NSDs as a development tool for students a bit pointless ... ? i would be happy about contradicting classroom reports, as i am still looking for some method(s) to help students improve their skills in using control structures (loops, branches)

besides: see also the thread about NSD software:

http://www.ceebot.org/index.php?option=com_fireboard&Itemid=9&func=view&catid=19&id=25#25

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