The moral of EWD237 - EWD239.

What is relevant and somewhat novel.

1)   The firm attitude that giving the correctness proof and composing the program are activities to be merged.

2)   The firm attitude that one should not only consider one's final program but that it should be regarded as member of a class of related programs

3)   The discovery that "changing a decision" and "postponing a decision" are intimately related. As "postponing a decision" is an essential aspect of the process of program composition, this should be done in such a way as to anticipate modifications.

4)   Postponing a decision may be "postponing the precise choice of the actual problem to be solved". Alternative programs for the same problem can be related to a common ancestor in very much the same way as a common ancestor can model the programs for similar problems.

5)   Such a common ancestor will be a rather abstract program. Relevant (and new for me) is the discovery that such an abstract program can be studied in its own right and is not just a vague sketch of what we are going to do, needing further detailing to make sense.

6)   That functional relationships can be introduced that are to hold at the semicolons is known. New seems the discovery that the range of validity can be made dependent on the level on which the semicolon occurs.

7)   New seems the discovery that these levels are the levels as suggested by "analysis of the problem" or "detailing of the algorithm", which seem to be two names for the same thing.

Things to be done.

An analysis of the relations between the different members of the same program class.

This is to be done in the hope of obtaining a classification of the types of abstractions considered.

This is to be done in the hope of obtaining an insight in the internal structure of this class (probably in relation to the structure of its members).

This is to be done in the hope of finding an adequate bookkeeping system.

This has to be done before we can do further experiments (see the cross-referencing mess on the last pages of EWD239!); it has also to be done before we can get an idea of what benefit we could derive from computer assistance.