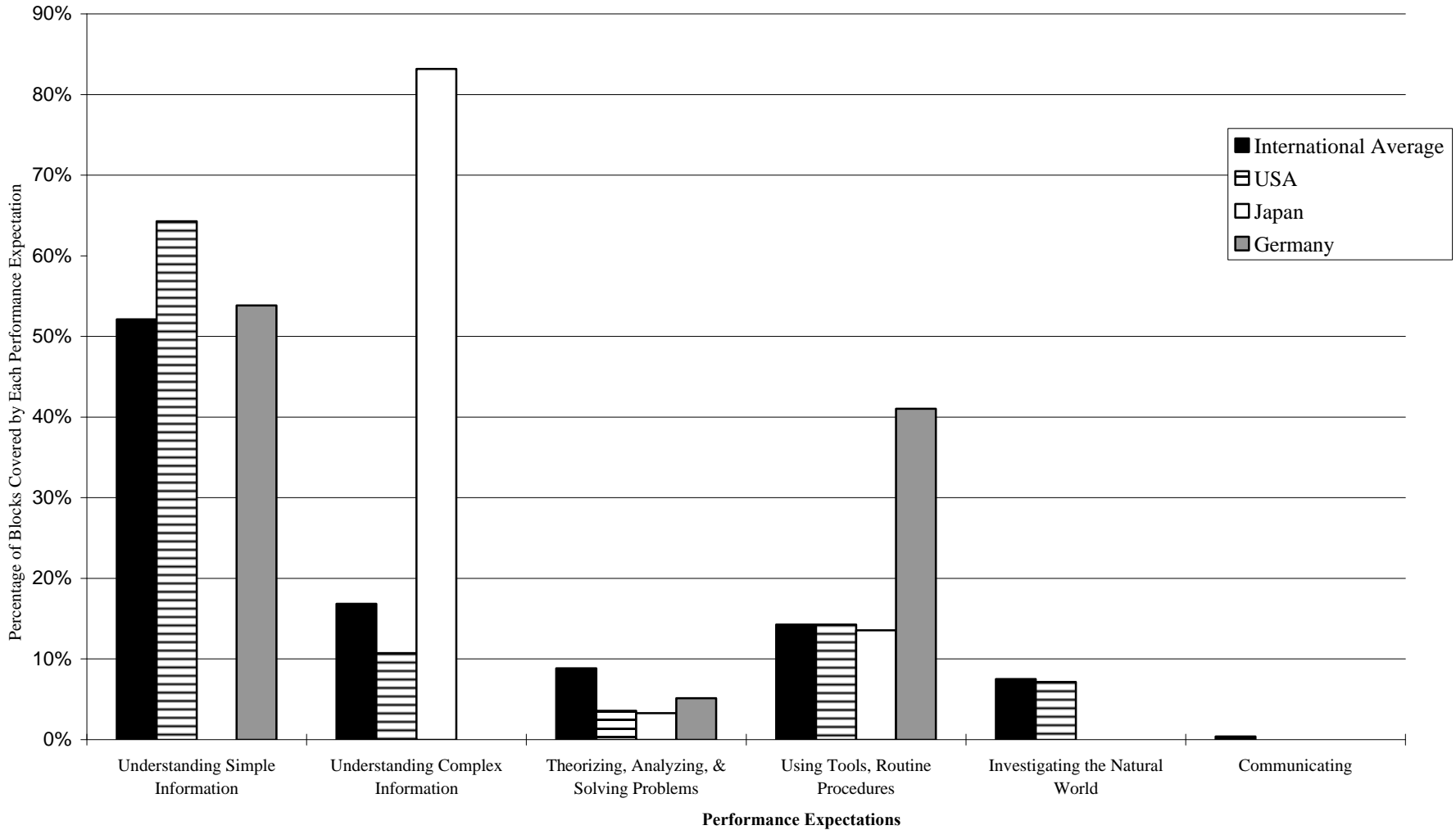


**Exhibit 40. Grade 8 science textbook performance expectations for 'Chemical Changes.'** All textbooks tend to use the least demanding expectation almost exclusively, except that Japan used only 'understanding complex information' rather than 'understanding simple information.' Germany made more use of routine procedures. In all cases the emphasis was almost entirely on understanding and on using routine procedures. [The columns represent the average percentage of grade 8 science textbook blocks indicating 'chemical changes' that also indicate the column's performance expectation. We give data for the international average, the U.S., Germany, and Japan.]



\* Missing bars indicate that the performance expectation was not included for this topic.