Questions (meeting 3)

1. Do the ideas of effective field theory change your perspective on the Fermi four-point interaction?

2. What is the dimension of $j^\mu j_\mu$? Of $j^\mu W_\mu$?

3. Could you add $\bar{\psi} \sigma_{\mu\nu} T^A \psi F^{\mu\nu} A$ to the lagrangian? Is it gauge invariant? Renormalizable?

4. How would you add a scalar field to the gauge theory?

5. For gauge group SU(3), how many gauge bosons are there? How many components to the fermion field?