

TEACHERS OF SCIENCE AND MATHEMATICS

4711. Hon Barry House to the Minister for Local Government representing the Minister for Education and Training
- (1) What specific training does a fully qualified science teacher currently undertake for a diploma or degree in education?
 - (2) How many teachers are currently teaching science at high school level in Western Australian
 - (a) public schools; and
 - (b) private schools?
 - (3) How many, or what proportion of these teachers, are fully qualified science teachers?
 - (4) How does the Government currently address the shortage of fully qualified science and mathematics teachers in this State?

Hon LJILJANNA RAVLICH replied:

- (1) While there are differences in detail between university programs, a fully qualified science teacher would generally have a three-year (or equivalent) science degree with a major in one of the physical or biological sciences and a minor in a related field, plus at least one year of education studies. The studies in science and education may be completed sequentially or concurrently. To illustrate, a qualified science teacher for secondary schools from Curtin University of Technology could come from one of three programs:

Graduate Diploma in Education (secondary):

Students entering this program already have a recognised university degree (usually 3 years) with a major in physics or chemistry or biology or a combination of sciences. This one-year program has general teaching units and specialised curriculum and instruction units in teaching the specific major teaching area, for example physics, to year 12. There are 45 days of supervised teaching in a school in the specialist area.

Double degree -- B.Ed and B.Sc:

This double degree takes 4 years to complete. For science teaching the student would take a Curtin University science degree with a major in a physical or biological science, for example Physics. Concurrently s/he would be completing units in education, for example, general teaching strategies, how young people learn, special education, and units on teaching the major and minor science content areas. The student would also undertake supervised teaching of the major and minor science teaching areas in a variety of secondary schools.

B.Ed. (secondary):

This is also a four year degree. The graduates are secondary teachers with a major and minor science specialism, for example, physics and chemistry, or physics and mathematics. The student studies science content units to third year level in the science department of the university alongside other B.Sc. students. S/he concurrently undertakes units in education including units specifically about teaching the major and minor content areas. The student would have approx 100 days of supervised teaching of the specialist area in a variety of secondary schools.

- (2)
 - (a) As at 28 March 2007, 888.
 - (b) No central database is kept for non-government schools.
- (3) All science teachers on the establishment are suitably qualified and/or experienced.
- (4) Strategies to recruit science and mathematics teachers include:
 - final Year Teaching Scholarship program for those who commit to work in areas of need;
 - overseas recruitment campaign;
 - an increasing focus on workforce planning through the Education Workforce Taskforce;
 - direct approaches through universities for final year graduates;
 - fast track of new employment applications identified in subject areas and locations of need;

- introduction of an immediate relief package of strategies designed to attract and retain teachers in identified locations of need;
- engagement of private recruitment agencies to assist in recruiting teachers to areas of need;
- successful establishment of a Standing Committee of the Ministerial Council for Education, Employment, Training and Youth Affairs to consider the development of a strategic framework for a national approach to workforce planning in education.