Dear Dr. Ezekiel,

I have read through the chapter on the significance of correlations and regressions, and congratulate you on the skill with which you have dealt with a very difficult subject.

The only point I should like to raise is that of testing the significance of simple correlations. You take an example of $r = .50$ from 7 pairs of observations, and if I have your method right you take

$$t = .50 \div \frac{1 - (.50)^2}{\sqrt{5}}, \quad m = 5$$

$$t = 1.491 \text{ nearly;}$$

the exact method is to take (p. 150)

$$t = \sqrt{\frac{r}{1 - r^2}} \sqrt{n - 2} = 1.291, \quad m = 5$$

The factor $\sqrt{1 - r^2}$ comes in to allow for the abnormal
distribution of the form $(1 - r^2)^{\frac{1}{2}}(n-4)$, and does not belong
to the S.E. formula. For testing significance from zero one would need the formula for $\rho = 0$, for which the factor
$(1 - \rho^2)$ reduces to unity.

I think the charts will be very useful; you have, I expect, noticed that for true correlation zero, they differ slightly,
as one would expect from the approximation used, from the values given in my book for simple correlations, and the values which Wishart tabulated from my $z$-distribution for the multiple correlation. But the discrepancies are of a magnitude rather to confirm, and give an estimate of the order of accuracy of your curves, than to discredit them.

I enclose a copy of Wishart's paper.

Yours sincerely,