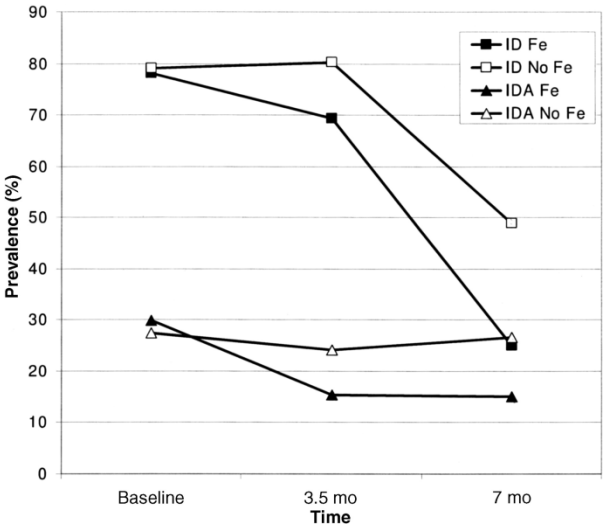
EXST7015 **Daily Design 10**

Carefully read the description of the experiment below. Be prepared to answer the questions that follow the design description as a class quiz.

Iron deficiency (ID) and iron deficiency anemia (IDA) are highly prevalent among young women and children in South and Southeast Asia. Iron fortification of rice could be an effective strategy for reducing iron deficiency anemia. The authors wanted to determine if extruded rice grains fortified with micronized ground ferric pyrophosphate (MGFP) would increase body iron stores in children.



In a double-blind, 7-mo, school-based feeding trial in Bangalore, India, iron-depleted, 6 to 13-year-old children (n = 184) were randomly assigned to receive either a rice-based lunch meal fortified with 20 mg Fe as MGFP or an identical but unfortified control meal. The meals were consumed under direct supervision, and daily leftovers were weighed. All children were dewormed at baseline and at 3.5 months. Iron status (ID) and hemoglobin (IDA) were measured at baseline, 3½ mo., and 7 mo. The variable of interest is the prevalence of iron deficiency (lower is better) at 0, 3½ and 7 months. Both variables, ID and IDA are shown in the graph but these are considered to be two separate analyses. For our purposes we are interested only in the prevalence of IDA, the iron deficiency anemia.

Answer choices:	**(A) prevalence of IDA**	**(B) children**	**(C) 0, 3½ and 7 months**
	(D) iron supplement	**(E) rice-based meal**	**(F) feeding trial**

Name _____ **Quiz Number** ____ **Date** _____ / _____ / **2012**

Circle the appropriate letter for each question.

1) What is the experimental unit for this experiment? A B C D E F

2) What is the sampling unit for this experiment? A B C D E F

3) What is the dependent variable for this experiment? A B C D E F

4) What is the treatment variable for this experiment? A B C D E F

5) If the design is RBD, what are the blocks? A B C D E F NA

6) Does it seem more likely that the treatments are fixed or random? (A) fixed (B) random

7) What is the treatment arrangement for this experiment? (A) single factor (B) factorial (C) nested

8) What is the experimental design? (A) CRD (B) RBD (C) LSD (D) Split-plot (E) Repeated Measures

9) The treatment degrees of freedom are _____ .

10) The degrees of freedom for the error used for testing treatments are _____ .