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From results of Maurer, Rhodes, and Fröhlich, we know that every function on a finite simple non-abelian group is a polynomial function; these groups are called *polynomially complete*. Later, it was studied when every congruence preserving function on an algebra is a polynomial function; such algebras were called *affine complete*. In 2001, P. Idziak and K. Słomczyńska introduced the concept of *polynomial richness*. It seems out of reach to characterize the affine complete or polynomially rich members of the varieties of groups or rings, but it is possible characterize finite expanded groups for which every *partial* congruence preserving function can be *interpolated* by a polynomial function. In this paper, a concept of polynomial richness dealing with partial functions will be introduced, and we will work towards a characterization of expanded groups with this property. (Received August 03, 2005)