1135-VN-220 **Anna Cui*** (`annacui08@gmail.com`), 7403 Rockfish Road, Fayetteville, NC 28306, and **Zhenlu Cui** (`zcui@uncfsu.edu`), 1200 Murchison Rd., Fayetteville, NC 28301. *The Fibonacci-Type Sequence Revisited: A Geometric Progression.* Preliminary report.

We consider a generalized Fibonacci sequence $A_{n+2} = kA_{n+1} + pA_n$, $n \geq 1$, where k and p are real numbers. Some well-known sequences such as Fibonacci sequence, Lucas sequence, Pell's sequence are special cases of this generalization. We find a closed formula for the nth term in the sequence by constructing a geometric sequence which is different from the methods in literature. We derive the generating function and establish some generalized identities for the sequence. We also find the limit of the ratio of successive terms, from which the Metallic Means can be obtained. (Received August 24, 2017)