Learning by means of mobile devices is becoming more popular. Efforts are being made in all academic disciplines, including foreign language teaching and learning to provide learning opportunities anywhere and anytime. This paper reports the attempt of a foreign language class which utilized Web 2.0 tools to create a flexible learning environment which could also be used to encourage mobile learning. The development of a series of podcasts to be used as a supplementary tool in learning Mandarin is the main concern of this paper. The students who were involved in this study were asked to evaluate the content and suitability of the podcasts. They were asked to complete a set of questionnaire and some of them were also randomly selected for an interview session. The findings showed that the use of podcasts as a learning tool was beneficial and podcast-based learning can be implemented as one of the creative ways to teach or learn a foreign language.