This thesis explores the phenomenon of BYOD and its use within educational environment. It includes an analysis of the phyphox application, and details its use in teaching physics both internationally and locally. Additionally, the thesis offers a description of fourteen phyphox-related topics, majority of which include insights gained from their practical implementation in teaching. This thesis also develops three sets of methodological guidelines for selected activities; appendix then includes worksheets designed for both students and teachers, along with concise instructions for using phyphox application.