


# Forester Navigation Application (FNA): Mobile Training in Environmental Organizations

Hamid Reza Sodagar<sup>1\*</sup>, PhD;  Mousareza Es'hagh-Pour Rezaee<sup>2</sup>, BA; Hamideh Rezaie<sup>3</sup>, MA

<sup>1</sup>Department of Educational Management, Gorgan Branch, Islamic Azad University, Gorgan, Iran

<sup>2</sup>Payame Noor University, Bojnourd Branch, Bojnourd, Iran

<sup>3</sup>Islamic Azad University, Shirvan Branch, Shirvan, Iran

## ABSTRACT

The Forester Navigation Application (FNA) is a new software application specifically developed to provide mobile training to the workforce in environmental organizations. The user interface of FNA is comprised of 6 main menus and 17 subsets. The menus include navigation, training, support, chat service, familiarity with protected areas, and foresters' duties. Foresters can use FNA to proceed with their mandate, become acquainted with protected environments, and prevent environmental violations.

**Keywords:** Navigation, Forester, Mobile Learning

*\*Corresponding author:*

Hamid Reza Sodagar, PhD;  
Department of Educational Management, Gorgan Branch, Islamic Azad University, Gorgan  
**Tel:** +98 9151575838  
**Email:** hamidreza.sodagar@yahoo.com

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In recent years, mobile phones have been extensively used in several fields such as banking, economics, tourism, entertainment, and library research (1). In addition, the recent technological breakthroughs, along with more affordable prices, have made mobile devices highly applicable for various purposes (2). A growing body of research reveals that learners have positive perceptions about mobile learning and find it highly engaging (3). This mode of learning can substantially improve learners' performance, especially in view of easy access to information and enhanced interactions provided by communication technology. Additionally, teachers can apply this new means of interaction to provide special instruction to larger groups of learners. Educational centers are increasingly adopting mobile learning to improve teaching and learning processes to the extent that this approach has become an alternative approach

to teaching (4). In general, educational systems around the world feel a strong need to use information and communication technology to provide better learning conditions for their students (5).

This technology gains more importance in environmental organizations, where half of the staff are foresters working in protected areas far from urban environments. However, traditional learning methods are still the predominant approach in this field. For example, experienced foresters work as guides for their younger colleagues. Using mobile learning solutions like Forester Navigation Application (FNA) can provide an excellent opportunity to train new personnel in most remote places. It can help them better patrol and control the protected areas without the need to be accompanied by experienced foresters. This application is installed on mobile phones and can create multi-user

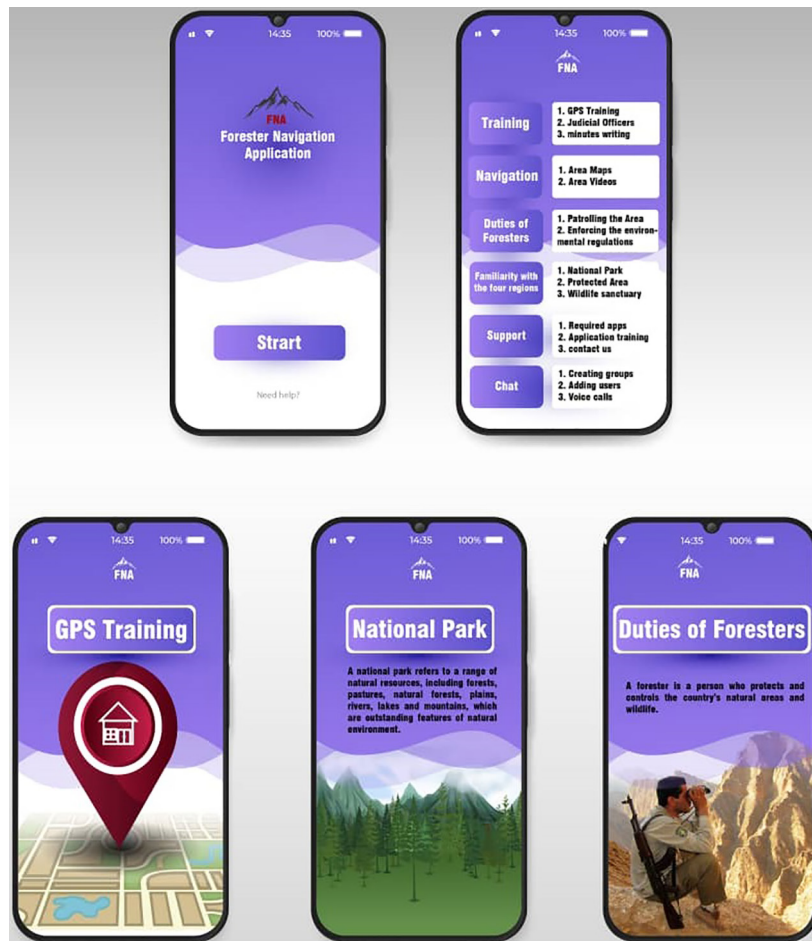


Figure 1. The Screenshots of FNA

virtual spaces and real-world simulation environments or game environments. This will enhance new foresters' motivation to learn and make them feel more connected to the environment. For instance, this application gives users the same experience as they have in a forest among plants, trees and insects (6).

As shown in Figure 1, the Forester Navigation application (FNA) includes an interface with 6 main menus and 17 subsets. The navigation menu displays two sections including area maps and videos taken from the protected areas. These videos provide newly recruited foresters with more information about different areas during patrols. In the training menu, there are three sections, namely GPS training, training of judicial officers, and minute writing training. GPS gadgets enable experts to identify the locations of environmental seizures. Since foresters are special officers of the judiciary, they should learn the relevant laws and be

able to prepare minutes in the event of any violations. In 'familiarity with protected areas' menu, foresters are provided with definitions of national parks, protected areas, wildlife sanctuary, and no-hunting zones. In the main menu, the duties of the foresters are given in two sections: patrolling the areas and enforcing the environmental regulations. Most of their activities involve the control protected areas. Therefore, this menu helps them better deal with poachers. In the chat menu, there are three sections: creating groups, adding users, and making voice calls, all of which can be controlled by the technology manager. The support menu features three sections, namely, required applications, application training, and contact us. Mobile learning is an important approach for efficient training of foresters through wireless communication. Given their remote locations, foresters generally prefer to use mobile devices at work, and in this respect

a mobile learning tool like FNA can make a substantial contribution to their professional development.

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### Conflict of Interest

The authors declare that there is no conflict of interest in this study.

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