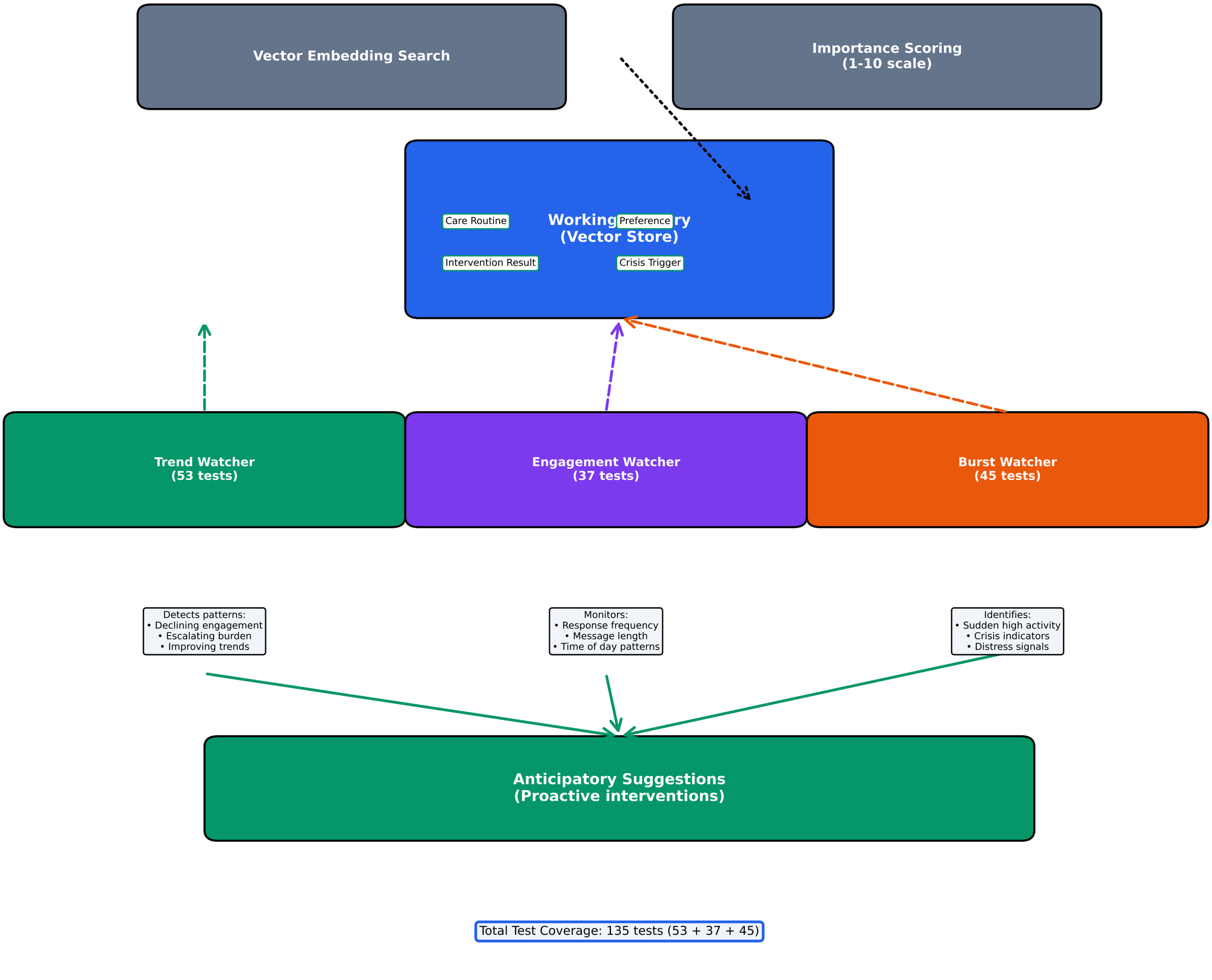Anticipatory Watcher Architecture