

An App to Facilitate Real Time Reporting of Interviewer Activities: Revelations and Outcomes of a Beta Test

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Abstract

How do interviewers spend their time? How can we maximize interviewers' time spent engaged in "productive" activities? Most survey projects ask interviewers to report time spent engaged in broad activities such as training, interviewing and locating. Interviewer time is typically reported once a week in an electronic timecard that requires the interviewer to report gross rather than granular details about their activities. Survey staff examine time reported in combination with call record entries and analysis of outcome codes which occasionally raises red flags unnecessarily, or more often, fails to reveal important details about activities in the field. We sometimes observe what appears to be little or no work being accomplished but when quizzed interviewers explain in rich detail exhaustive efforts to accomplish their tasks.

NORC recently identified and programmed a mobile device App that allowed interviewers to report their activities in real time and in richer detail. We conducted a proof of concept test to determine if interviewers would successfully utilize the App to record granular field activity and to determine if the App was suitable for our tracking purpose.

Key Words: Time use, tracking time, measuring interviewer activities

1. Background and Objectives

Many of our funding sources have requested more detailed information about how field interviewers spend their time working assigned tasks. Interviewers often have numerous appointments across a wide geography with little time in-between to document the variety of tasks they may accomplish at each destination. At the end of a long and busy day they report challenges in recalling time spent in distinct activities such as time traveling, documenting, reporting, contacting, screening, and interviewing. Further distinctions, such as time spent on working various sample types, have also been difficult for interviewers to recall and account for separately. This lead to a discussion about how we could obtain accurate measures of time use by field interviewers and making a request of the NORC Idea Lab to develop and test an activity tracking app that allows interviewers to indicate how they are spending their time and to easily indicate when they move from one task to another or one sample type to another.

Currently interviewers account for their time at the end of their day or at the end of a week. They typically use two or three high level activity codes to account for their labor hours: training, interviewing and locating. Time allocated to these codes in combination to call record entries and analysis of outcome codes sometimes raise red flags unnecessarily, or more often, fail to reveal important details about the variety of activities interviewers engage in throughout data collection. We sometimes observe what appears to be little or no work being accomplished but when we quiz the interviewers about their time they explain in rich detail exhaustive efforts to accomplish their tasks. Rather than picking up volunteered anecdotes or securing more detailed information retroactively from interviewers about their activities, the App allows the capture of regular, detailed activities that can be systematically evaluated to understand how interviews use their time to accomplish their work. We anticipate that this will result in improved data collection protocols and better training and preparation for interviewers.

1.1 The Challenge

Field staff report difficulty keeping track of time spent in distinct activities such as travel, contact attempts, documentation, reporting, and conducting interviews. Further distinctions, such as time spent working on various sample types, have also been difficult to isolate within the larger contact histories and labor reporting. There is an operational need to identify systematic approaches to obtain accurate measures of time use in a simple and unobtrusive way.

1.2 Potential Benefits

In-person data collection is expensive. We believe these data will ultimately provide important insight into how interviewers spend their time which will allow us to do the following:

- See important nuanced differences between less and more productive interviewers, which will help inform coaching and mentoring sessions.
- Identify tasks to streamline or enhance through the improvement of interviewer tools, processes and protocols with the goal of promoting time dedicated to contacting, gaining cooperation and interviewing.
- Evaluate activities to allow early responsive adjustments so that interviewers are able to work more efficiently and productively.

1.3 Our Goal and Measure of Success

We identified two goals for the project:

1. Obtain a proof of concept by determining whether or not interviewers will use the App.
2. Determine goodness of fit of third party time tracking software for our data collection purposes.

The success criteria are both the ease of use by the interviewer and the ease of adaptability of the software to meet the specific needs of a project. First, in just a few seconds, interviewers need to be able to indicate the specific activity they are engaged in as frequently as is necessary to reflect accurately how they are spending their time in the field. Second, the application needs to be configurable to allow adaptability for projects that want to track specific and targeted measures of time use in relation to key project objectives.

2. The Test

During the last quarter of 2014 a small team of survey, field and IT staff planned and executed a small test of the use of an App to collect time use data.

The team debated the level of specificity of the tasks we would measure and decided that an exhaustive list with fine granularity seemed ill advised for an initial test especially since the three projects volunteering to be part of the test engaged interviewers in only a subset of the exhaustive list of potential field activities. For our initial test we decided to measure time engaged in the following:

- Case preparation and organization
- Travel
- Contacting
- Locating: finding respondents
- Screening
- Interviewing
- Reporting
- Training
- Coaching and mentoring
- Technical support
- Time and expense reporting.

We acknowledged that a successful test would lead to expanding this list to include several epics, such as Listing, Screening, Computer Assisted Personal Interviewing (CAPI), Pen-and-Pencil Interviewing (PAPI), Locating, and Validation. Within each epic we would include a subset of tasks associated with successful completion of the epic. Concurrent with our discussions about what we would measure were deliberations about how we would measure these activities. We considered using an off-the shelf App, or developing one in-house, to facilitate unobtrusive real time data capture of Interviewer activities. Our IT team had been researching a third party mobile application called Timely that met most of our criteria for a successful proof of concept test. We looked for an application that ideally was compatible on common iOS and Android mobile platforms; Timely was only available on Apple mobile devices at the time of the test. The features of Timely which we determined were necessary for a successful test may be found in Exhibit 1.

Exhibit 1: Features of the App

Supervisor	Interviewer
Assign daily or weekly tasks	Specify additional task(s) not assigned by supervisor
Estimate time for a task	Toggle between actual time and estimated time
Real time updates sent to supervisor	Add notes about a task
View total time spent by interviewer or by task	Easily indicate when one task stops and another starts
Data exportable to Excel	

Working with the NORC Field Operations team, three field projects with interviewers actively collecting data agreed to participate. It was important to identify interviewers who would be forthcoming with what worked well and suggestions for improvement. Nine assertive and outspoken interviewers were selected to participate in the test. Three field managers and three central office staff also participated to provide additional observations while assisting with interviewer support.

The Timely software was programmed with the targeted tasks for interviewers to measure and iPhone mobile devices were loaded with the Timely software and distributed to interviewers. Appendix A includes some of the Timely screens and features.

Interviewers participated in a briefing to learn the mechanics and functionality of the software prior to starting the test. After a day of using the software interviewers met with their supervisors to ask questions and receive further instructions. After using the software for a week interviewers, field managers and Central Office staff met to discuss their use of the app and to give the interviewers another opportunity to ask questions. At the end of two weeks they participated in a debriefing to describe their experiences.

2.1 Findings

Will Interviewers and supervisors use the app? Yes, all assigned staff were able to use the App and reported regular and detailed time activity data.

Was the software easy to use? Yes, the learning curve was short but a longer collection period is necessary to establish a routine. Staff with little experience using technology made mistakes in data entry and they reported difficulty in correcting mistakes.

Did the software accommodate a variety of tasks? Yes. The application was easily configured to manage the tracking of categories of activities and specific tasks. Further investigation is needed to refine the epics and associated tasks that correspond with interviewer activity and accurately reflect their experiences in the field.

Will the software meet our needs? Yes, if modifications can be made. Modifications will be necessary to address reported issues such as:

- Too many options for capturing time: further refinement is needed to address device types, task specifications and definitions, and time use documentation
- Only compatible with Apple hardware
- User difficulty in correcting entry mistakes
- Need memory aid for switching tasks.

Others issues: There was not a common understanding of the definitions of the activity labels.

2.2 Discussion

Software Limitations:

- The software is operational only on the iPhone.
- The app is too sensitive and unforgiving.
- Interviewers need a reminder that they are being timed so that they indicate when they are switching tasks.

2.3 Conclusions

- Interviewers will use the app to capture their time use.
- Interviewers need to have a common understanding of the task labels.
- Need to limit capture of time use to real time, limit device type and disallow idiosyncratic task specifications.

Ultimately the capture of these data should lead to important insight into how interviewers spend their time. We anticipate seeing the nuanced differences between less and more productive interviewers, which will inform coaching and mentoring sessions. We will likely learn of tasks that need to be streamlined so that interviewers have improved tools and protocols allowing more time to devote to contacting, gaining cooperation and interviewing. And real time delivery and evaluation of these data will allow early responsive adjustments so that interviewers are able to work more efficiently and productively.

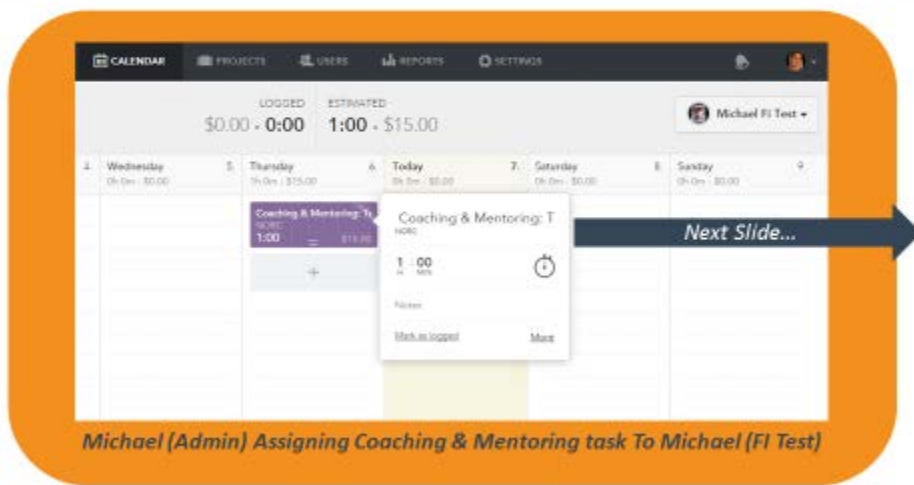
Acknowledgement

We are grateful to NORC's Idea Lab for funding this project.

Appendix A: Features of Timely App



Creating A Schedule/Assigning Tasks: The admin can assign daily or weekly tasks to all users as needed

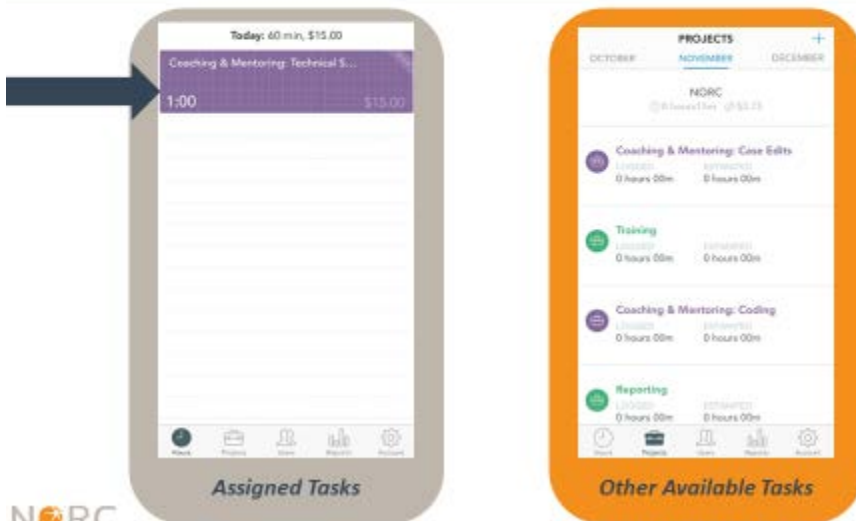


Michael (Admin) Assigning Coaching & Mentoring task To Michael (FI Test)





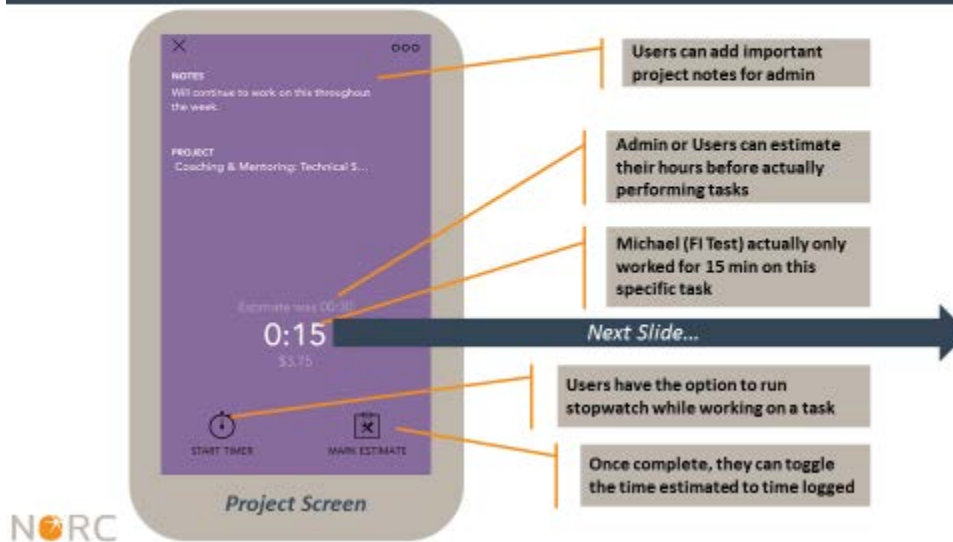
Login: Upon logging in, users are shown their assigned tasks and have the option to add tasks that were not assigned



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Time Entry: Users can log time spent on all tasks as well as note their progress via their iPhone



NORC



Real Time Updates: As users log their time, admin receives notice and can immediately track time and charges on all tasks, either assigned or added

The screenshot shows a dashboard with a navigation bar (PROJECTS, USERS, REPORTS, SETTINGS) and a user profile (Michael Fi Test). Below the navigation, there are summary statistics for LOGGED (\$3.75 - 0:15) and ESTIMATED (0:00 - \$0.00) time and charges. A calendar view shows the current day (Today) with a notification: "Will continue to work... 0:15" with a charge of \$3.75. A modal window titled "Coaching & Mentoring: T" shows a timer at 0:15 and an estimated charge of \$3.75. The modal also contains the text "Will continue to work on this" and buttons for "Make estimate" and "More".

Michael (Admin) immediately Receives Notice Of Michael's (FI Test) Update



Admin Monitoring: Admin can also view a total summary of all work completed at any time, either by task type or by user

The first screenshot shows a "My Projects" view for "November 2014" with a "Create New Project" button. It lists several tasks under the "NORC" project, including "Coaching & Mentoring: Technical Support", "Case Preparation & Organization", "Coaching & Mentoring: Biometrics", and "Coaching & Mentoring: Cost Edits". Each task has columns for "Hours" and "Charges".

The second screenshot shows a "Users" view for "November 2014" with a "Create New User" button. It lists three users: "Michael Fi Test", "Michael J. Kuzhali", and "Randy Martin". Each user has columns for "Hours" and "Charges".

Total Hours & Charges By Task

Total Hours & Charges By Users





Reporting: Admin has the option to generate an automatic report at any time or export all data– both estimated and logged time– to an Excel dataset

Timesheet

NORC
Nov 01 2014 - Nov 30 2014

NORC Logged: 1 hour 15m - \$18.75 | Estimated: 10 hours 4m - \$151.00

Coaching & Mentoring: Time & Expense Reporting Logged: 0 hours - \$0.00 | Estimated: 0 hours 42m - \$10.50

Date	User	Time	Note
Nov 05 2014	Randy Horton	0 hours 30m	-
Nov 07 2014	Randy Horton	0 hours 12m	-

Coaching & Mentoring: Technical Support Logged: 0 hours 45m - \$11.25 | Estimated: 0 hours - \$0.00

Michael (Admin) Can Create Reports On Total Hours And Charges As PDFs (As Show Above) And In Microsoft Excel



App Pricing: Upon completion of our trial, use of the Timely app will either be free or require a very minimal fee

30-day free trial - no credit card required

Pay monthly, no long term contracts, cancel at any time.

FREE	FREELANCER	TEAM	BUSINESS	PREMIUM
Free	\$14 /month	\$49 /month	\$99 /month	\$199 /month
1 user 3 projects	1 user Unlimited projects	5 users 25 projects	15 users 75 projects	45 users Unlimited projects
START FREE ACCOUNT	START FREE TRIAL	START FREE TRIAL	START FREE TRIAL	START FREE TRIAL

Free Trial for 45 Total Users Expires December 4, 2014



Appendix B: Interviewer Questionnaire

Background Information

Section 1.01 1) What kind of operating system does your *personal* cell phone use?

- iOS (all iPhones) Other _____
- Android Don't know
- Windows Do not own a personal cell phone

2) Before this time keeping project, how familiar were you with using an iPhone for regular, everyday functions?

- Completely Familiar Somewhat Familiar Somewhat Unfamiliar Completely Unfamiliar

Project Information

3) Did you use your own iPhone for this project, or did you use one provided by NORC?

- Used own iPhone Used iPhone provided by NORC

4) How many days did you use the Timely application to record your field interviewing tasks?
_____ Days

5) On the *first* day that you used Timely to track your work time, approximately what percentage of your total daily work tasks do you feel you were able to accurately record?

- 100% (All) 75%-99% (Almost (All)) 50%-74% (Most) 25%-49% (Some) <25% (Few)

6) On the *last* day that you used Timely to track your work time, approximately what percentage of your total daily work tasks do you feel you were able to accurately record?

- 100% (All) 75%-99% (Almost (All)) 50%-74% (Most) 25%-49% (Some) <25% (Few)

7) **Overall** and throughout the entire project time period, approximately what percentage of your total work tasks do you feel you were able to accurately record?

- 100% (All) 75%-99% (Almost (All)) 50%-74% (Most) 25%-49% (Some) <25% (Few)

8) What would you say was the primary reason you were unable to accurately record all of your tasks?

- N/A - I recorded all of my tasks accurately
- The timer function was difficult to use
- The timer function was difficult to navigate to
- The app in general was difficult to navigate
- Forgetting to start the timer
- Forgetting to stop the timer
- Specific interview(s) too complicated to time

9) In your own words, what was the most difficult or annoying aspect of using the app?

10) In your own words, what was the most positive or enjoyable aspect of using the app?

11a) Which of your field interviewing tasks was most difficult to accurately record?

- None - they were all easy to record Locating/Finding respondents
- Case preparation & organization Interviewing

- Travel
- Contacting respondents
- Screening
- Reporting/Meeting with field manager
- Coaching & mentoring
- Other _____

11b) *[Skip if 'None' chosen at 11a]* What specifically made the task so difficult to record?

12a) How easy or difficult would you say the Timely app was to use?

- Very Easy
- Somewhat Easy
- Somewhat Difficult
- Very Difficult

12b) If 'Very Difficult' or 'Somewhat Difficult', please explain why:

13a) If used on a larger scale at NORC, how accurately do you think the Timely app would be in recording the day-to-day tasks of field interviewers?

- Very Accurate
- Somewhat Accurate
- Somewhat Inaccurate
- Not at all Accurate

13b) If 'Not at all Accurate' or 'Somewhat Inaccurate', please explain why:

Section 1.02 14) What three features would you change or add to improve the functionality of Timely?

- _____
- _____
- _____

15) Please let us know any last suggestions or thoughts on FI time tracking that you may have, whether or not they pertain to the Timely app:
