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The New England Center
for Children®

A leader in autism research and education

Functional Requirements Specification
For
ACE - Mobile Application
(iPhone and iPod Touch)

Version 1.~~1~~10
June 22nd , 2012

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DOCUMENT CONTROL SHEET

Revision History					
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1. Introduction

The purpose of this document is to provide a brief understanding of what the engagement is all about, followed by a detailed understanding of all the functionalities & features of the 'ACE Mobile Data Collection' application. The document also contains a detailed overview of all the functionalities, interface design, error handling and user interactions for this tool. The document also elaborates on the usability, design, functional limitations of the application and it's impact on the modules of existing web application.

1.1 Background

NECC has extended the purview of it's partnership with Aditi Technologies by entrusting Aditi for development of an iOS based native application which would enable the teachers to capture real-time student responses for various trials conducted for all/any curricula tied to the student, while the trial sessions are going on. The application will also allow the users to summarize and email the trial session data and the teachers will be able to simultaneously enter data for multiple sessions, which can include multiple curricula for single student, single curriculum for multiple students or multiple curricula for multiple students.

This will minimize a lot of effort for the teachers as they can capture session trial data real time and will eliminate the need to fill in data grids in curriculum data sheets.

The data entry application will be available for download from the Apple Store and users will be able to access it only if the teacher's school has subscribed to mobile application. The App will be developed for iPhone & iPod touch. The application will also allow the user to be able to record the trial data for curricula in the offline mode and submit the session summary to ACE, minimizing the dependency on internet connectivity.

1.2 Project Objectives

The primary objective of this engagement to make Mobile Data Collection App available as a plug and play feature in ACE. This feature can be activated or deactivated as required based on a school's subscription model.

Some of the other key objectives of the application are:
- ✓ Real time data capture
- ✓ Eliminate tedious data sheet entry
- ✓ Reduce the efforts on data entry into ACE web application

1.3 Project Stakeholders

The key stake holders for the project will be:
- ✓ Jim Santiago – CIO, NECC.
- ✓ Renee Mansfield – Program Director, NECC.
- ✓ Chata Dickson – Curriculum Specialist, NECC
- ✓ Theresa Cerrone – Curriculum Specialist, NECC.
- ✓ Utah Nickel – Curriculum Specialist, NECC
- ✓ Patrick Story – Project Manager, IS, NECC
- ✓ ACE Mobile team at Aditi

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1.4 Scope

In Scope

The features which will be implemented as a part of this engagement are as follows :

- ✓ Login
- ✓ Curricula (student and corresponding curricula)
- ✓ My students - Add/Delete Student
- ✓ Setting up trials for SA, TA & IT types of curricula
- ✓ Data Collection for SA, TA & IT types of curricula
- ✓ Data summary for SA, TA & IT types of curricula
- ✓ Appropriate error messages and notifications
- ✓ Local storage of data on the device
- ✓ Data sync services to push & pull data to and from ACE database server using web services.
- ✓ Changes to the ACE web application to support mobile data entry
- ✓ Development of web services that the mobile app can invoke
- ✓ Rule based emailing of session data from the server during data sync

Out of Scope

The features that will not be included in the scope for this project are as follows:

- ✓ Support for any device apart from iOS (iPhone, iPod touch)
- ✓ Apple rejection comments outside of the fixes or features developed.

> **Comment [UN1]:** JS/ RM – How will this be handled?
>
> CK- We will revert on this shortly.

1.5 Assumptions

- ✓ NECC will provide all the necessary information for development of this module, as and when required.
- ✓ The application will be developed for iOS (iPhone & iPod) only based on the requirements gathered from NECC.
- ✓ Internet connectivity is required for login into this app and to sync data. The application will support offline data collection, once users have logged in and retain the user login session in the app for a fixed time period (ex: 8 hours). Locally stored data will be synced once internet connection is re-established.
- ✓ The application will be supported in English language only.
- ✓ Customers who wish to use this app need an ACE account.
- ✓ The ACE application will maintain the user accounts and activities. Creation of new users will happen only via the current web based application.
- ✓ Aditi will develop web services on top of the current ACE framework which the mobile application can consume to send and receive data.
- ✓ Server side sync services will be developed by Aditi.
- ✓ iPad tablet versions will not be supported. However, the app could be installed on the iPad but Aditi will not be certifying the behavior of the app on the iPad.
- ✓ The application will be hosted on Apple App Store using NECC's iOS developer license.

2. Definitions and Acronyms

- ✓ ACE – Autism Curriculum Encyclopedia
- ✓ SA – Skill ~~Assessment~~Acquisition
- ✓ TA – Task Analysis
- ✓ IT – Incidental Teaching

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3. Application Overview

3.1 About the ACE Web Application and Mobile Data Collection Application

Autism Curriculum Encyclopedia (ACE) is a Web Application providing special educators with an evidence based program to assess, teach, and evaluate autistic students across multiple schools and locations. ACE provides lesson plans, assessment tools, instructional content, and student performance reports for over 1,300 skills defined within the curricula used at NECC.

The **ACE Mobile Application** is based on the curriculum module of the Autism Curriculum Encyclopedia.This will help the teachers by providing them the capability of entering student's response data while the trial session is going on. This will help in real time capturing of the data and minimize the duplication of data entry effort on data sheets and then on web application.

The **ACE Mobile Application** will be developed for **iPhone and iPod Touch** devices. The Application will be available for **free download** on Apple App store.

3.2 Process Flow for the ACE Mobile Application

Login → Student Curricula → Trial Setup & View Past Data → Start Trial → Capture Trial Data → Summarize Trial Data
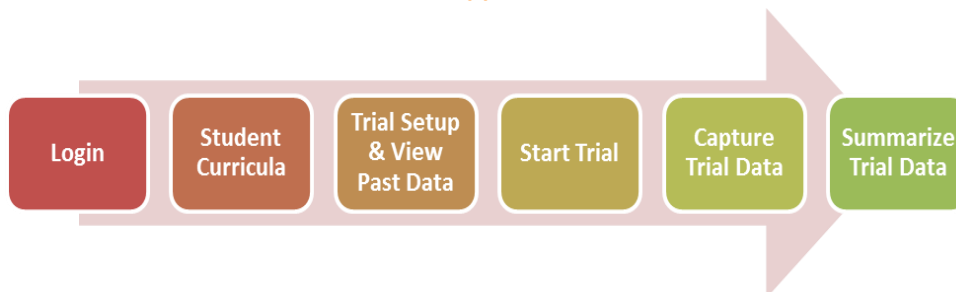
3.3 Who are the users of the Application?

✓ **Teachers**: The users of this applications would primarily be the teachers **associated with schools who will subscribe to the mobile application.**

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3.4 Benefits of the ACE Mobile Application

Some of the percieved benefits of the ACE Mobile Application are as follows:

- ✓ **Real time data capture** for multiple sessions.
- ✓ Capability to run **multiple sessions** for same or different students at a time
- ✓ Elimination of **manual data entry** effort on data sheets and web.
- ✓ Easy **single tap summarization** of data.
- ✓ Easy set up of trial sessions.
- ✓ Bird's eye view of **past data** for last few sessions.
- ✓ Data entry can be done in **offline mode**.

3.5 How to launch the Application?

- ✓ The users will be able to launch the application **by tapping on the 'ACE' application icon** available in the applications menu of the iPhone /iPod device. This will navigate the users to the **login screen** of the application.

3.6 What are the devices on which the application will be supported?

- ✓ The ACE Mobile application will be supported on **devices based on iOS mobile platform**, i.e, iPhone and iPod Touch devices.

3.7 What are screen resolutions that will be supported by the application?

The application will support following screen resolutions:

- ✓ 320 * 480 px
- ✓ 640 * 960 px

3.8 How to set up the Trial Sessions?

Trial sessions for SA , TA and IT type of curricula can be set up by specifying following details respectively:
- ✓ SA : Sub-Level, Step and Trial Type
- ✓ TA : Trial type and Training step
- ✓ IT : Context and Trial type

3.9 How will the data entry on mobile device be enabled?

- ✓ Data entry for mobile device will be enabled from ACE web application by:

1. **School**: By selecting the radio button 'Yes' for enabling mobile data entry while adding or editing school information in the Admin module.
2. **Curriculum**: By selecting the 'Yes' radio button in the enable mobile data entry option on the 'Curriculum metadata' screen of the content module.

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3.10 How will the users navigate from one session to another?

✓ In order to switch between sessions, the users can open up the list of all active sessions by tapping the'Active Sessions' tab on the tab bar and then select the session to which they want to navigate.

✓ The list will have Student name and the respective curriculum details for each session.

✓ This will navigate the users to the latest post-trial setup state of the sesion selected

3.11 How will users navigate from one trial to another trial?

✓ Users can switch between trials by swiping towards the **left** and **right** on the device screen.
✓ Swipe to left for previous trial and swipe right for next trial.

3.12 How will the users analyze the data captured using this application?

✓ By summarizing the trial data at any point in the session and viewing the summary grid on the **Session Summary** screen or emaling the data to the registered email ID.

3.13 How will the data required by the application get managed?

✓ The data required for the application will be managed from the content and curriculum module of the Autism curriculum Encyclopedia.

3.14 How will the data synchronization with web application happen?

✓ User Initiated:
    1. On tapping the **'Sync All'** option available within the Options tab on the tab bar view
✓ System managed sync:
    1. Auto sync on login
    2. Auto sync on addition of a student to update respective curricula.
    3. Periodic interval sync. Refer business rules in section 6.

3.15 How will the application handle multiple users?

✓ The iphone devices may be used by multiple users. To handle this scenario, the application will locally save the data captured by the users and sync it periodically as well as adhoc based on appropriate triggers.
✓ In case the previous user was not able to save the data due to lack of internet connectivity: The data captured by the previous user will be synchronized to the ACE database when the next user signs in to the application. Data will be saved only for completed sessions. Data for ongoing sessions will be lost
✓ Each user will see a relevant list of students and corresponding curricula on the 'Curricula' screen depending upon the credentials provided on login screen.

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3.16 How will users add or delete a student?

Adding a Student

✓ **To add new student(s)** : Users can add new students by tapping on the '+' button available on the carousel with student details.

✓ Users need to select school and team details using the 'Picker' control. Student names get cascaded based on the school and team selected.

✓ Multiple students from one school and team can be added at a time using the grid with student names.

Deleting a Student

✓ **To delete a student from the list**: Users need to tap on the student details card to view a delete icon next to the student details card on the carousel on the 'Curricula' Screen.

✓ They can then tap on the delete button to delete the student(s) they wish to exclude from the list of students.

✓ Users will get a confirmaton message, before the student gets deleted from the list.

3.17 How will users log out from the application?

✓ Users will be able to sign out of the application at any point of time by using the **Log Out** option available on all the screens.
✓ Users will be navigated back to the login screen on signing out of the application.

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4. Key Personas

Olivia Smith: Teacher 1

Basic Information	
Age	31
Occupation	Teacher at NECC, Boston
Application usage	Almost every day
Gear	A Dell Inspiron 15" laptop for work and an iPhone device for calling, data and text.
Need for the mobile application	Conducts trials at various locations (school, home etc.) and finds it really difficult to initially capture data in predefined data sheets and then duplicate the efforts by re-entering the same data in the ACE application.
Project Specific	
When does she use the mobile application?	• For conducting Trial sessions for SA, TA, IT types of curriculum OR • Synchronizing the data locally saved on the device
What does she do with the application?	• Uses the application for data entry during the trial sessions for her students. • Add/delete student • Analysis of summarized data and emails the same from the application itself • Synchronizes the data already captured.
Olivia's experience goal	To be able to seamlessly record student responses during the trial, viewing the summarized data for the trial and timely synchronization of the captured data with ACE database.
How Olivia works	
Work Place	Work mostly from the NECC School premises in Boston and does visit student's house for some trials.
Skills	She is a very proficient teacher on all kinds of curricula and has been teaching autistic children for last 7 years.She uses the current ACE web application regularly and is quite up to date with lastest technologies and is extremely comfortable with all kinds of Apple devices including iPhone, iPod and iPad. She has a profile on almost all of the social networking websites. She also has a professional profile on LinkedIn and has around 250 contacts on her list.

Samantha Parker: Teacher 2

Basic Information	
Age	28
Occupation	Teacher at NECC, Boston
Application Usage	Uses the app around 5 times a week
Gear	A 17" Mac book Pro and an iPhone 4S for text, voice and data.
Need for the mobile application	Needs the application in order to directly capture real time session data on the iPhone and eliminating wastage of time in data sheet entry and then updating the ACE web.
Project Specific	
When does he access the tool?	• During trial sessions for her students • For Synchronization of the trial data between the device and the ACE database.
What does he do with the tool?	• Uses the application for data entry during the trial sessions for her students. • Add/delete student(s). • Summarizing the data collected during the trials. • Synchronizes the data already captured.
Samantha's experience goals	To record student responses on the go during trials without and lag time and to be able to easily sync the data between ACE database and iPhone device.
How Samantha works	
Working Environment	Mostly works from NECC school campus, apart from the days when she has to go to student's house for teaching some specific skills.
Skills	She has been teaching various skills to autistic children for the last 5 years but is new at NECC. She is comfortable using web applications and has mastered the ACE web application in a short time. She finds iPhone and iPad to be very user friendly devices and uses her iPhone 4S for all possible causes. She has her profile on all social networks though she doesn't spend much time on these sites due to lack of time.

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5. Functional Requirements

This section describes the functional requirements in terms of functionalities, features and feature components. The requirements in this section are organized by features in a logical sequence of user experience.

5.1 Feature Listing

Feature	Sub Feature	Description	Priority
Login screen	Credentials	Login and password	High
	Login Button	Allow login and navigate user to landing screen.	High
	Request Password	Users can request new password by taping on 'Request password'	High
	Account lockout notification (This is applicable only when the user provides correct User Id)	If user provides wrong password for 2 times, a notification message will appear. If user povides wrong password for 3 consecutive times, the account will be locked out.	High
	About Us	Navigate user on the mobile browser to the page on www.necc.org that describes the ACE product (i.e. www.necc.org/programs-and-services/ace.aspx) ACE web	High
	Learn More	Button for taking a tour of the app.	High
Location	Select Database Location (this will be a one time use feature and will be used before the first login after installing the application)	Users will be prompted to specify the location of the application database they want to access (USAmericas/Canada or Outside US), in order to view appropriate data within the application.	High
Student Curriculum	'My Students' Carousel	Carousel with details of students added in the list for mobile data entry.	High
	Add new student	Will allow user to add a new student. The list is stored on ACE Server, and a version is saved on the phone for offline use.	High
	Delete student	Will allow user to delete a student from the list. The list is stored on ACE Server, and a version is saved on the phone for offline use.	High
	Curiculum list	Users will be able to see a list of all	High

Comment [UN2]: ACE Website?

CK: Updated the statement

UN 7/11/12 We will be launching new ACE web site in near future. Pat can provide you with its web address.

Comment [UN3]: Is there a way to reset this. I.e. Teacher teaches for one year in US using personal phone, but gets transferred to the Abu Dhabi campus. What is the process for this teacher to unconnect from the US DB and to the East Asia DB.

CK- No. The Teacher will need to re-install the app in this case.

UN: OK

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		curricula currently active and mobile enabled corresponding to the highlighted student alongwith the type and objective.	
	Select curriculum for trial	Users will be able to select the curriculum for trial by tapping the desired curriculum.	High
Session setup	SA	User will need to provide sub-level, and trial type and step for starting a new session. Users will be able to see data related to 5 latest sessions (in ascending chronological order) for the selected sub-level.	High
	TA	Training Step and Trial type information is required for starting a new session. Past data related to 5 latest sessions (in ascending chronological order) will be available,	High
	IT	Context and trial type information to be provided to start new session. Past data for 3 most recent sessions to be available on the screen (in ascending chronological order) and should dynamically refresh depending upon the selected context.	High
	Past data	View past data for last 5 sessions for SA and TA type of curricula and last 3 sessions for IT type of curricula.	High
	Alerts and Recommendations	On-screen pop up messages for all appropriate scenarios defined in section 5.7.	High
	Start Trial	Start button to navigate users to data entry screen.	High
Session Trials	Butons for response	Trial sessions for each type of curriculum will have appropriate buttons for registering the student responses.	High
	Trial to Trial navigation (SA & IT) OR Step to Step Navigation (TA)	Users should be able to seamlessly navigate from one data entry screen to another using left/right swipes.	High
	Session to session navigation	Multiple trial sessions will be active at a time. Users should be able to navigate from one session to another session by	High

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		selecting the desired session from the list of active sessions.	
	Summarize Data Button	Will allow the user to summarize trial data with a single tap .	High
	Trial count (SA & IT) / Step count (TA)	Indication of current and total trials in x/y format.	Medium
	Alerts and Recommendations	Appropriate recommendations and on-screen messages will be displayed based on defined business rule.	High
Summary Screen	Summary Grid	Grid to show the count of various responses for SA & IT and responses for each step for TA type of curriculum.	High
	Student details	Name of the selected student will be displayed at all times during the session.	High
	Curriculum info	Name of the curriculum along with relevant details will be displayed on the screen across the session.	High
	Staff	Name (first letters of first name and last name) of the staff will be prepopulated in the staff name text box, however users can choose to overwrite the same.	High
	Setting	Drop down menu to select setting.	High
	Status	Drop down menu to select from predefined statuses for a student's mastery on the skill.	High
	Email session data	Toggle option to set 'Email session data' ON or OFF.	High
	Discard	Button to discard the session and go back to 'My Students'.	High
	Resume	Button to resume the session and conduct more trials.	High
	Finish	Button to finish the session and navigate back to the 'My Students' screen.	High
Data synchronization	Sync All	Will allow the user to sync the data collected from the iPhone application into ACE database and update data from ACE database to iPhone application.	High
	Automatic sync on next login	Data sync will be initiated once another user logs in to the application.	High
Request login after (hrs)	Request login	Session will be retained till the maximum time set by the user in the options menu (by default 8 hours) OR the user explicitly logs out the session.	High
Log Out	Log out	Users will be will be able to sign out of the application, from all the screens of the application post login.	High

Comment [UN4]: If user has set for 8 hours and is using the application at the 7.5 hour mark; will user be loged out while activly using the application?

CK - No. User will need to re-login only if they have quit the application and launch it after 8 hours from the previous login. In case the user continues to use the application, they will not be prompted to login again.

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Location Settings	Database access (US or Non-US)	One-time settings screen which users will get after first login, on which they will be able to select the location or data-center to which their school pertains to.	High

5.2 Screens & Navigation

✓ On login the users will be navigated to the 'Curricula' screen which is also the landing screen for the application. This screen will contain a carousel comprising of multiple cards with each card containing single student's detail (corresponding school & team). The list of students populated on the screen will be based on the User ID provided by the user on the login screen.

✓ A tab bar feature with some uniform navigation options will be available at the bottom of the screen at all times.

✓ There will be **4 primary screens** driven by the tabs on the tab bar to allow users to navigate through the application and perform all actions required to complete the trial session and summarize data successfully.

✓ The four tabs available on the screen will be as follows:
1. Curricula
2. Current Session
3. Active Sessions
4. Options

✓ **Curricula:** The 'Curricula' screen will display a carousel with student details for upto 10 students and the list of active curricula for the highlighted/selected student will appear under the carousel.

✓ **Current Session**: Users will be able to navigate to the present state of their most latest session using the 'Current Session' tab.

✓ **Active Sessions**: Users can navigate from one active session to another by opening the list of active sessions by tapping on the 'active sessions' tab on the tab bar and then tapping on the session to which they wish to navigate.

✓ **Options**: Will have options to allow the users to:
1. Sync All : Button to tap when user wants to explicitly sync the data.
2. Get Recommendations: Toggle with 'ON' or 'OFF'.
3. Auto Sync on wi-fi: Toggle with 'ON' or 'OFF'.
4. Request Login After : Drop down to select one of the options with predefined number of hours.

✓ The users can navigate back and forth to any of the 4 screens, at any point of time by tapping on the appropriate tab on the tab bar.

✓ The users can navigate from one trial to another by:
1. **Next Trial/ Step** : Registering the response for the current trial (SA/IT)/Step(TA) and swiping right on the screen.
2. **Previous Trial/Step** : Swiping left on the screen.

✓ Apart from the screen mentioned above, the application will also have pop up messages and other intermediate screens for maintaining the logical flow of the functionalities provided.

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Screens & Features

Login
- User name and password
- Request password
- Alerts for account lockout
- About Us
- Learn More

Curricula
- Student carousel
- Curriculum list
- Add student
- Delete student
- Log Out

Trial Setup
- Set trial details
- View Past data
- Start trial
- Log Out

Current Session
- Trial Data entry
- Student name
- Curriculum details
- Trial count
- Summarize data
- Alerts
- Skip to Training Step (TA – backward and forward)

View Active Sessions
- View all active sessions for all students.
- Start data entry for any session
- Summarize data

Summary
- View overall student responses
- Email session data
- Finish
- Discard
- Resume

Options
- Sync All
- Show Recommendations
- Auto Sync on wi-fi
- Request login after

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5.3 Scenarios for Use of the Mobile Data Collection Application

Olivia and Samantha use the application when:

- ✓ They want to use the iphones for capturing student response data during trials.
- ✓ They have to explicitly synchronize the data from and to ACE database.
- ✓ Add/Delete a student to/from the mobile data entry student list.
- ✓ Analyze past data from previous sessions of the same curriculum for a student.
- ✓ Summarize data for all trials across the session.

5.4 Device Usage Facts

- ✓ Olivia and Samantha are colleagues at NECC and teach various curricula to students from various teams across school(s).
- ✓ At times they use the same device for data entry for students response.
- ✓ Generally, while using the application on the iPhone device, both of them run multiple sessions for multiple students, at a time.
- ✓ Once they sign into the application they are able to continue working on the application in the offline mode.

5.5 Olivia's Experience with the Mobile Data Collection Application

- ✓ Olivia comes to school everyday and has 2 teams of 5 students and 6 students each.
- ✓ She needs to start the trial sessions for two of the students and also start data entry for the same.
- ✓ She is doing trial session for one of the students for the first time, hence the student is not there on the student carousel on the 'curricula' screen of Olivia.
- ✓ She adds the student to the list and proceeds to the next step.
- ✓ She selects a SA type of curriculum for the session and starts data entry for the same.
- ✓ After all the trials she summarizes the data and finishes the trial.
- ✓ During this time she also starts another session for both the students, for a TA type of curriculum and summarizes data for the same.
- ✓ Once finished with trials she synchronizes the data for all the students on her list by using the 'Sync All' option on the 'My Students' screen.

5.6 Samantha's Experience with the Mobile Data Collection Application

- ✓ Samantha is a new joinee at NECC. She comes to school everyday and has 5 students in the team.
- ✓ None of these student's name are currently there on the student carousel on 'Curricula' screen that Samantha can view.
- ✓ She adds all the students to her list, with help of the picker control on the 'Add Student' screen.
- ✓ She starts a trial session for an IT type of curriculum for a student.
- ✓ She has to stop the session due to some urgent need and wants to resume the session in few hours.
- ✓ She comes back and starts the trial session again and summarizes the data at the end of the session.
- ✓ Samantha, then signs out of the application using the 'Log Out' button.

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5.7 On- screen Messages that Olivia and Samantha Encounter

While setting up the trial sessions and conducting the for the students, Olivia & Samantha gets a bunch of on-screen pop messages based on past data and student responses to trials:

✓ **Past data from the previous sessions**

SA Session Set up screen
1. Two consecutive sessions at 80% Independence or better.
2. Two consecutive sessions at 60% correct or less.

IT Session Set up screen
1. Two consecutive sessions at 80% Independence or better.
2. Two consecutive sessions at 60% correct or less.

TA Session Set up screen (Forward and Backward chain)
1. Two consecutive sessions with 'I' recorded for training step.
2. Two consecutive sessions with error(s) on previously mastered step(s) {ErrorStep*}.
   Where ErrorStep = step number for which error was logged in both sessions.

✓ **Responses to trials/Within Trial Data**

SA type curriculum:
1. Two consecutive errors recorded within a session.
2. Three errors recorded within a session.

However, as if **Samantha is** a accessing new user a curricula that and **has no past data** on her device, she gets on-screen messages only for 'Within Trial Data'. She will start getting the on-screen messages as applicable for 'Past Data Grid' once she finishes 5 trials for SA / TA type of curricula and/or 3 trials for IT type of curricula respectively.

Users can **set the feature** to show these screen messages **to ON or OFF** by using the **'Show Recommendations' toggle** button on the **'Options'** screen**.**

Apart from the above mentioned scenarios the users will also see some **mandatory** on-screen pop-up with error messages for:

✓ Two consecutive wrong user ID/password entry and request password prompt.
✓ Account lockout (provided User ID was correct and password incorrect for 3 consecutive attempts).
✓ Password request acceptance.

The content and business logic behind all these screen messages are being elaborated in '**Appendix 1**'. click here to view the 'Alerts & Recommendations'grid.

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5.8 High Level Use Cases

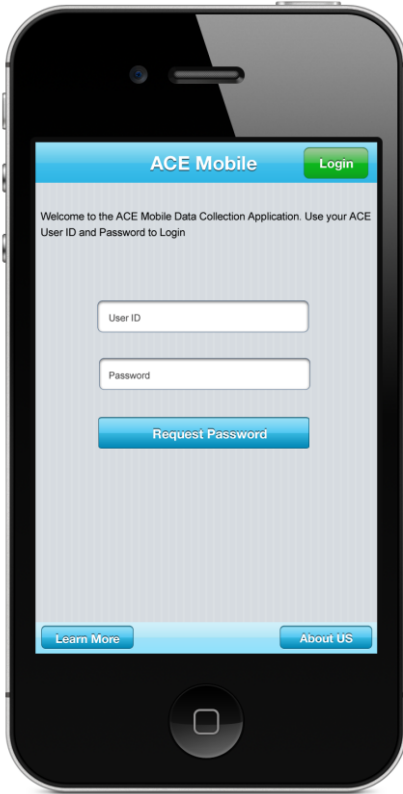The above mentioned user scenarios encountered by users can be nailed down into following use cases:

S.No	Use Case	Scenario Persona	Use case Actor
1	Launching the application	Olivia & Samantha	Olivia (Repeat User)/ Samantha (New User)
2	Login and user authentication	Olivia & Samantha	Olivia
3	Adding and deleting Student(s)	Olivia	Olivia
4	Set up Curricula Screen for New Teacher	Samantha	Samantha
5	Selection of student and curriculum for the trial session	Olivia & Samantha	Olivia
6	Managing Sessions for SA type of curriculum : ✓ Set up new session and viewing past data: ✓ Trial data entry ✓ Summarize data	Olivia	Olivia
7	Managing Sessions for TA type of curriculum and handling multiple sessions : ✓ Set up new session and viewing past data: ✓ Trial data entry ✓ Summarize data ✓ Start new session in between a session ✓ Navigate to other sessions	Olivia	Olivia
8	Managing Sessions for IT type of curriculum : ✓ Set up new session and viewing past data: ✓ Trial data entry ✓ Summarize data	Samantha	Samantha
9	Data Synchronization and other settings & options	Olivia & Samantha	Olivia

All of these use cases are elaborated in the subsequent section, Detailed Use Cases.

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5.9 Detailed Use cases
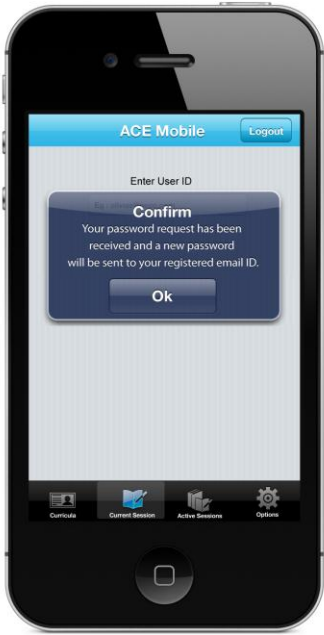
5.9.1 Launching the Application

Launching the Application	
Actor: Samantha (First Time User) Olivia (Repeat User) **User Role:** Teacher	**Use Case Number:** 5.9.1 **User authentication:** Any User
Characteristic Information	
Use Case Goal:	Launching the ACE mobile Data Collection application and selection of appropriate data center at the first launch of application on that device.
Pre-Condition	The application should be downloaded on the device.
Post-Condition	User should be able to view the login screen.
Use Case Description	

Step #	What Samantha (First Time User) does	What Samantha views on screen
5.9.1.1	She is a first time user. Opens the applications menu.	Applications menu:

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Launching the Application		
5.9.1.2	Taps on the 'ACE' mobile application icon.	Screen with option to select data center: ✓ ~~US~~Americas/ Canada ✓ Asia
5.9.1.3	She selects the data center as US/Canada and taps on 'Continue'.	Login screen Loads on her mobile device.
Alternative Scenarios		

Step #	What Olivia (not a first time user) Does	What does she see on screen
5.9.2.1.1	Launches the application	Navigated to the login screen directly as the data-center selection screen that Samantha viewed appears only at the first time usage of the application.

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5.9.2 Login & User Authentication

Login & User Authentication	
Actors: Olivia **User Role:** Teacher	**Use Case Number: 5.9.2** **User authentication:** User based
Characteristic Information	
Use Case Goal:	Signing in to the ACE mobile Data Collection application.
Pre-Condition	User should have selected login option on the launching screen and login screen should be open on device screen.
Post-Condition	User should be signed in to the application and 'Curricula' screen should be visible on the device.
Use Case Description	

Step #	What Olivia does	What Olivia views on screen
5.9.2.1	Enters correct 'User ID' and 'Password'. 	Lands on 'Curricula' screen.

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Login & User Authentication		
5.9.2.2	Remembers the User ID but doesn't remember the password so she Taps on 'Request password' on the login screen.	Screen with option to enter valid 'User ID' and 'Request password' button appears on screen. *[image of iPhone showing ACE Mobile screen with Back and Submit buttons, "Enter User ID" field with example "Eg : olivias@necc.com"]*
5.9.2.3	Enters her User ID and taps on 'Request Password' button.	Message indicating that the randomly generated password is sent to the registered email ID appears on screen.

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Login & User Authentication

Alternative Scenarios

Step #	What Olivia Does	What does she see on screen
5.9.2.1.1	Enters incorrect password once.	Message indicating that either User ID or Password is incorrect appears in a popup.
5.9.2.1.2	Enters incorrect password twice.	Warning message indicating Account lockout on next incorrect attempt.

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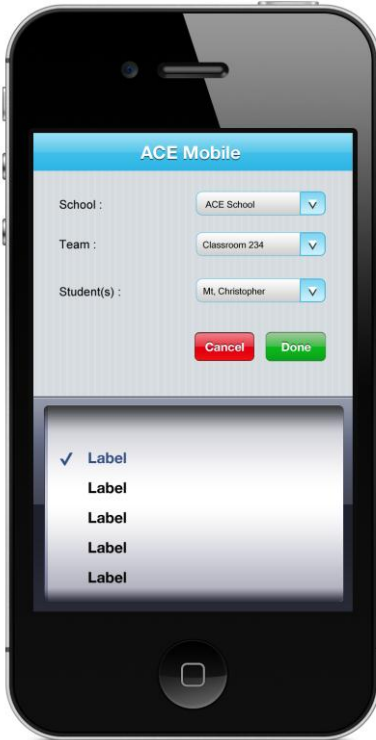
Login & User Authentication

5.9.2.1.3	Enters incorrect password thrice.	Account lockout. Please contact Administrator your new password.
5.9.2.1.4	Forgot User ID.	Will have to contact administrator (manual process not device driven)
5.9.2.1.1	Chooses to view a tour of the application by tapping on 'Take a Tour of 'ACE MobileLearn More'.	Navigates to the Video tour of the application.

Comment [UN6]: Is this directing them to the ACE website that has a video on it?

CK- Ideally, this can be an Image with explanatory text & pictures. Alternatley, this can also be a video file, but it would be better that the video is available locally, so that the user is not forced to be online while trying to take a tour. The "Learn More" button will be hyperlinked to the image/video file. Let us know if this is fine.

UN 7/12/2012 – Yes we will be fine with a Image with explanatory text and pictures, local to the phone.

5.9.3 Adding or Deleting a Student

Add/Delete a student	
Actors: Olivia	**Use Case Number: 5.9.3**
User Role: Teacher	**User authentication:** User based
Characteristic Information	

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Add/Delete a student	
Use Case Goal	To be able to add and delete students to the list of students available on the students carousel on the 'Curricula' screen.
Pre-Condition	User should have signed in to the application has 'Curricula' screen open on his screen.
Post-Condition	User should be signed in to the application and should be able to perform all specified actions from the screen.
Use Case Description	

Step #	What Olivia does	What Olivia views on screen
5.9.3.1	Taps on 'add' button on the 'Curricula' screen to add a new student.	Add student screen
5.9.3.2	Taps on the school name Drop down	Relevant schools to which she has access to, will populate on her screen on the picker control.
5.9.3.3	Selects the desired school	School name reflected on the school Drop down and the team drop down gets cascaded based on the school selected.
5.9.3.4	Selects team from the drop down menu using picker control.	Selected team appears on the drop-down box. Student drop-down gets cascaded based on the school & team selected.

Comment [UN7]: Given user with multiple schools, User would be able to first add set of students from one school, and then as a second set of students from another, provided it was under 10 total students correct?

CK – Yes, this is correct.

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Add/Delete a student		
5.9.3.5	Selects the student name(s) from the grid that appears on tapping on the student(s) drop down.	Selected student name(s) reflects in the Student(s) dropdown.
5.9.3.6	She repeats the steps 5.9.3.1 to 5.9.3.5 in order to add student(s) from other schools and then taps on 'Done' button.	Student added to the list and appears on student carousel on the 'curricula' screen.
5.9.3.7	Wants to delete a student from the list, so swipes around the carousel and then taps on the card for the student which they want to delete from the list.	Delete icons appear next to the student name.
5.9.3.8	Taps on delete button next to name of the student to delete from the list.	Gets a confirmation pop-up asking "Are you sure you want to delete this student from the list?" appears on the user's screen.
5.9.3.9	Selects 'Yes' as an option on the	Student gets deleted from the list and does not appear on the

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Add/Delete a student		
	pop-up.	student carousel.

Alternative Scenarios		

Step #	What Olivia Does	What does Olivia see on screen
5.9.3.1.1	Taps on 'Add' button, but she already has 10 students on her carousel.	A pop message appears on her screen. 'Sorry! You can't add more than 10 students to your list for mobile data entry'.
5.9.3.1.2	Taps on 'OK' button and decides to delete another student from the list and long presses the student name to be deleted.	Delete icon appears next to the student names.
5.9.3.1.3	Taps on the delete icon next to the student name.	Gets a confirmation pop-up asking "Are you sure you want to delete this student from the list?"
5.9.3.1.4	Selects 'Yes' on the confirmation pop-up.	Student deleted from the list.
5.9.3.1.5	Now taps on 'add' icon again.	Navigated to add student screen.
5.9.3.1.6	Follows steps 5.9.3.1 to 5.9.3.6.	Student added to the list.
5.9.3.9.1	Selects 'No' on the confirmation pop-up.	The student name doesn't get deleted.

Comment [UN8]: Possible Test case senario for TC senario document: 8 students in the carosel, user uses the student picker to select 3 additional students. Clicks Done. Does this result in message stating only two avaliable slots, does it result in only 2 of the three getting added?

CK- Yes, when adding, a validation check will be in place to see that the the number of students that the user is adding does not push the total # of students in the My Students list beyond the allowable limit. Users will not be able to add the selected students and will have to select fewer students to add.

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5.9.4 Set up Student List and Curricula for a New Teacher

Setup Curricula Screen for New Teacher	
Actors: Samantha User Role: New Teacher	**Use Case Number:** 5.9.4 **User authentication:** User based
Characteristic Information	
Use Case Goal:	Set up the Curricula screen with addition of students and update active curricula for the students.
Pre-Condition	User should have signed in to the application and has been navigated to the 'Curricula' screen.
Post-Condition	Curricula screen should contain all desired students on the student carousel and curricula corresponding to each of these students should be visible on the screen.
Use Case Description	

Step #	What Samantha does	What Samantha views on screen
5.9.4.1	Lands on the 'Curricula' screen on login	The student carousel on her screen does not have any students.
5.9.4.2	Taps on 'Add' button on the 'Curricula' screen.	Add student screen uploads on the device.
5.9.4.3	Selects school and team	Relevant student names get populated on the picker.
5.9.4.4	Multi-selects all the student names from the student picker at once.	Selected student names reflects in the Student(s) drop-down (separated by comma)
5.9.4.5	Taps on 'Done' button	Students added to the student carousel and student's active curricula list gets updated if the user is connected to the internet.
5.9.4.6	If working on 3g and not Wi-Fi she will need to perform an explicit sync and to do that she opens up 'Options' screen by tapping on 'Options' tab on the tab bar.	'Options' screen opens on device.
5.9.4.7	Taps on the 'Sync All' button on the screen	List of all the active curricula corresponding to each of the added students gets updated on the curriculum list on the 'Curricula' screen
5.9.4.8	Flips through the student carousel to select student	Able to view active curricula for each of the students.

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Setup Curricula Screen for New Teacher	
Alternative Scenarios	

Step #	What Samantha Does	What does Samantha see on screen
5.9.4.4.1	Taps on 'Cancel' button	Navigates back to 'Curricula' screen.
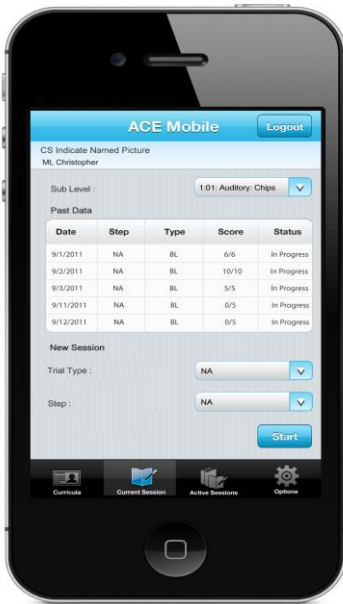
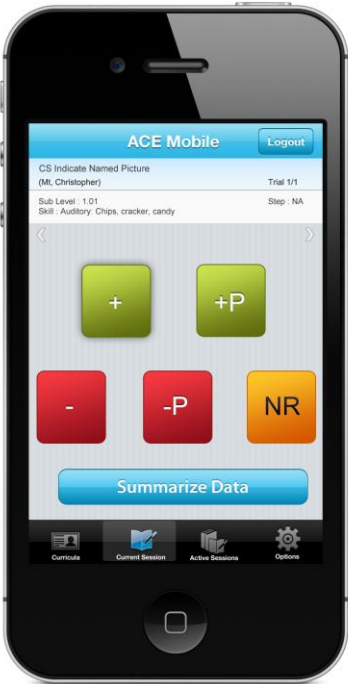## 5.9.5 Selection of Student and Curriculum for the Trial Session

Select Student and Curriculum for Trial	
Actors: Olivia **User Role:** Teacher	**Use Case Number:** 5.9.5 **User authentication:** User based
Characteristic Information	
Use Case Goal:	Enable user to select the student and desired curriculum for conducting a trial session.
Pre-Condition	User should be signed in to the application and should have 'Curricula' screen uploaded on their device.
Post-Condition	User should be able to select student and curriculum for beginning a trial session and should be navigated to the Trial setup screen.
Use Case Description	

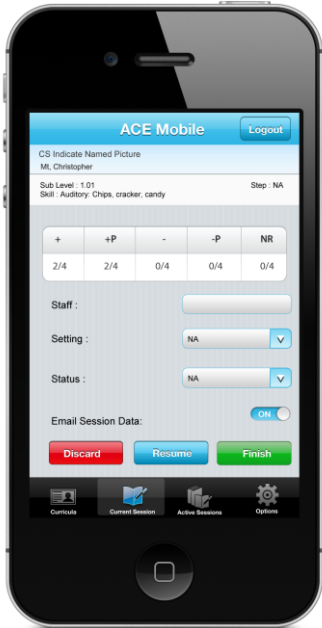| Step #	What Olivia does	What Olivia views on screen
5.9.5.1	Flips through the student carousel and Taps on the selected student name on the carousel to select the student for trial.	List of active curricula for the relevant student appears on screen.

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Select Student and Curriculum for Trial

5.9.5.2	Taps on the desired curriculum from the list available.	Is navigated to the appropriate trial setup screen for the selected curriculum.

5.9.6 Managing Sessions for SA type of curriculum

Managing Sessions for SA Type of Curriculum	
Actors: Olivia	**Use Case Number:** 5.9.6
User Role: Teacher	**User authentication:** User based
Characteristic Information	
Use Case Goal:	To enable users to Manage sessions for SA type of curriculum : ✓ Set up new session and viewing past data: ✓ Trial data entry ✓ Summarize data for the trial
Pre-Condition	User should select the student and curriculum for trial on the 'Curricula' screen and should be navigated to the trial setup screen on the device.
Post-Condition	User should be able to finish the trial and summarize the trial data.
Use Case Description	
Step #	**What Olivia does**	**What Olivia views on screen**

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Managing Sessions for SA Type of Curriculum	
5.9.6.1	Views the Curricula screen and selects the curriculum 'CS Indicate Named Picture' (SA type of curriculum) by tapping on it.	User is navigated to the relevant trial setup screen for SA type of curriculum.

5.9.6.2	She can view the following on screen: ✓ Sub-Level: drop down menu ✓ Past Data grid (data from last 5 sessions) ✓ Step: drop down menu ✓ Trial type: drop down menu ✓ 'Start' button She now selects a 'Sub-Level' from the options available in the drop down menu.	Past Data for previous 5 sessions gets updated based on the selected sub-level.
5.9.6.3	Selects 'Step' from the drop down menu. Steps get cascaded based on the sub-level selected in the previous step.	Selected sub-level and step visible on screen.
5.9.6.4	Selects Trial type, which is standard for all types of curricula.	Can view the sub-level, step and trial type selections on screen.
5.9.6.5	Taps on 'Start' button	Navigates to the trial data entry screen.

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Managing Sessions for SA Type of Curriculum		
5.9.6.6	Can view following response options on the screen: ✓ + (correct response) ✓ +P (correct with prompt) ✓ - (incorrect response) ✓ -P (incorrect on prompt too) ✓ NR (No response) Conducts the trial and taps on the appropriate student response.	The button indicating the selected response gets highlighted.
5.9.6.7	Swipes to the right for navigating to the next trial.	Navigates to the next trial screen.
5.9.6.8	Conducts the trial and taps on the appropriate student response again.	The button indicating the selected response gets highlighted.
5.9.6.9	Repeats the same process for desired number of trials.	Selected response buttons get highlighted on each trial data entry screen.
5.9.6.10	Taps on 'Summarize Data'.	Gets navigated to trial summary screen.

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Managing Sessions for SA Type of Curriculum	
5.9.6.11	She can view staff name as 'OS' which comprises of first characters of her first and last name respectively. She chooses to override the same and write her name as 'Olivia', hence deletes the text and writes her name in the Staff text box.	Her name 'Olivia' is displayed in the Staff text box.
5.9.6.12	Selects 'Settings' and 'Status'.	Settings and status are displayed on the user's device screen.
5.9.6.13	Sets 'Email Session Data' to 'ON' using the toggle button.	'Email session data toggle shows 'ON' as the current selection. The data for individual trials of the trial session will be emailed to the user (from the server).
5.9.6.14	Taps on the 'Finish' button.	Navigates back to the 'curricula' screen.
Alternative Scenarios		

Step #	What Olivia Does	What Olivia views on screen
5.9.6.2.1	Changes sub-level on trial setup screen.	Past data gets updarted ased on the sub level selected
5.9.6.3.1	Changes step on setup screen.	Selected step gets reflected.
5.9.6.4.1	Changes trial type on setup screen.	Selected Trial type gets reflected.

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Managing Sessions for SA Type of Curriculum		
5.9.6.7.1	Swipes left to navigate to the previous trial.	Gets navigated to the previous trial and can view the selected response for the trial.
5.9.6.14.1	Taps on 'Resume' button on summary screen.	Navigates back to Trial data entry screen.
5.9.6.14.2	Taps on 'Discard' button on summary screen.	Navigates back to the 'Curricula' screen.

5.9.7 Managing Sessions for TA type of Curriculum and Handling Multiple Sessions

Managing sessions for TA type of curriculum and handling multiple sessions	
Actors: Olivia **User Role:** Teacher	**Use Case Number:** 5.9.7 **User authentication:** User based
Characteristic Information	
Use Case Goal:	To enable users to Manage sessions for TA type of curriculum : ✓ Set up new session and viewing past data: ✓ Trial data entry ✓ Summarize data for the trial
Pre-Condition	User should select the student and TA type of curriculum from the active curricula list for the student, available on the 'Curricula' screen and should be navigated to the trial setup screen on the device.
Post-Condition	User should be able to finish the trial and summarize the trial data.
Use Case Description	
Step #	**What Olivia does**	**What Olivia views on screen**
5.9.7.1	She is on the Curricula screen and	User is navigated to the relevant trial setup screen for TA type

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Managing sessions for TA type of curriculum and handling multiple sessions

	has selected the student and curriculum 'Snack Making' (TA type of curriculum) for the session, by tapping on it.	of curriculum.
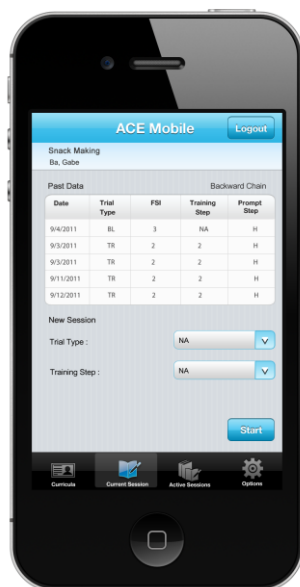
Comment [UN11]: Column header for "Prompt Step" - Change to "Prompt"

CK- Will get this changed..
UN – Thank you

| 5.9.7.2 | Views past data grid (which contains data for last 5 sessions) and selects 'Trial Type' and 'Training Step'.

The training step that she selects is based on what step the student is currently learning for a given TA type of ~~the~~curriculum. The chaining sequence of the curriculum as:

✓ Last step independent will be considered for forward chaining.
✓ First step independent will be considered for backward chaining.
✓ Total step: Total number of steps with "I". Training step will be saved as ~~Not applicable~~NA.
✓ ~~Training step not applicable~~ | Selected Trial Type and Training step are displayed on the screen. |

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Managing sessions for TA type of curriculum and handling multiple sessions

	~~as she can start at any step in this case.~~ ✓	
5.9.7.3	Taps on 'Start' button.	Navigated to the data entry screen for the step 1 of the selected TA type of curriculum for the student.

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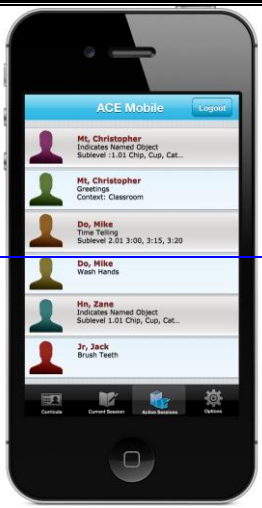| Managing sessions for TA type of curriculum and handling multiple sessions |
|---|

5.9.7.4	Taps on student response for the current step and swipes to the right for the next step.	Navigated to the data entry screen for the next step. Step reflected on the screen will get updated based on the step for which the user is doing data entry.
5.9.7.5	She now plans to start another session and do some data entry for the other session for another student so she taps on the 'Curricula' tab.	Navigated to the 'Curricula' screen.

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Managing sessions for TA type of curriculum and handling multiple sessions		
5.9.7.6	Selects students and curricula.	Lands on the session setup screen for the curricula.
5.9.7.7	Sets up the session and starts by taping on the start button.	Lands on data entry screen for the session.
5.9.7.8	Enters data for 2 trials and now wants to navigate back the previous session so taps on the 'Active Sessions' tab	Navigated to the list of all active sessions.
5.9.7.9	Selects the appropriate session by tapping on it.	Navigated back to the data entry screen for the previous session.
5.9.7.10	Enters data for few more trials similarly and then decides to view what response she selected for the first trial so swipes to the left.	Navigated to the first trial where the selected response is highlighted.
5.9.7.11	She corrects this response by tapping on another button and	Navigated to the summary screen for the session.

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Managing sessions for TA type of curriculum and handling multiple sessions

<table>
<tr>
<td></td>
<td>then taps on 'Summarize data' button.</td>
<td>

</td>
<td></td>
</tr>
</table>

5.9.7.12	Analyzes the summary data. She can also view staff name as 'OS' which comprises of first characters of her first and last name respectively.	Initials of her name 'Olivia Smith' is displayed as 'OS' in the Staff text box.
5.9.7.13	'First Step Independent' field is pre-populated and she selects the 'Setting' and 'Status' and 'No. of trials' from the drop down options available. <u>(Refer business rules section for rules to pre-populate values)</u>	First Step Independent, Setting, Status and no. of trials is displayed on the screen.
5.9.7.14	Sets 'Email Session Data' to 'ON' using the toggle button.	'Email session data toggle shows 'ON' as the current selection.
5.9.7.15	Taps on the 'Finish' button.	Navigates back to the 'curricula' screen.

Alternative Scenarios

Step #	What Olivia Does	What Olivia views on screen
5.9.7.3.1	Wants to log out so taps on the 'Log Out' button.	Navigated to the login screen.
5.9.7.10.1	Decides to skip to training step after registering the responses,	<u>Clicking on this brings the user to the TA data entry screen of the step that was indicated as the training step during the TA</u>

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Managing sessions for TA type of curriculum and handling multiple sessions	
so taps on 'Skip to Training Step' button.	data setup screen. ~~This can be a step before or after the current step~~ Users can be redirected to steps either prior to or later than the current step they are on, when they choose to Skip to Training step. If it is a step for which data has already been captured, then the previously selected input value will be highlighted.~~Back to 'Curricula' screen.~~

5.9.8 Managing Sessions for IT Type of Curriculum

Managing Sessions for IT type of curriculum	
Actors: Samantha	**Use Case Number: 5.9.8**
User Role: Teacher	**User authentication:** User based
Characteristic Information	
Use Case Goal:	To enable user to Manage sessions for IT type of curriculum : ✓ Set up new session and viewing past data: ✓ Trial data entry ✓ Summarize data for the trial
Pre-Condition	User should select the student and IT type of curriculum from student's active curricula list on the 'Curricula' screen and should be navigated to the trial setup screen on the device.
Post-Condition	User should be able to finish the trial and summarize the trial data.
Use Case Description	

Step #	What Samantha does	What Samantha views on screen
5.9.8.1	She has selected the student 'Do, Mike' and curriculum 'Initiate Greeting' and can view the trial setup screen on her screen. She selects the 'Context' from the drop down menu option and analyzes the past data grid (which has data for last 3 sessions) on the screen.	Selected context is displayed on the screen.

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Managing Sessions for IT type of curriculum	
5.9.8.2	Selects 'trial type' from the drop down option available.	Selected trial type is displayed on the screen.
5.9.8.3	Taps on the 'Start' button.	Navigated to the data entry screen for the selected IT type of curriculum.
5.9.8.4	Performs 5 trials and taps on the	Lands on the Summary screen.

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Managing Sessions for IT type of curriculum	
	'Summarize Data' option.

5.9.8.5	Enters data for one more trial and taps on 'Summarize data' once again	Summary screen is displayed on her screen again.
5.9.8.6	Enters her name in the Staff name text box, which by default displays the initials of her first and last name 'SP'.	Her name is displayed in the Staff text box.
5.9.8.7	Selects the 'MIP' and 'Status'.	Session resumed and she is back to the data entry screen.
5.9.8.8	Taps on 'Finish' button	Navigated back to the 'curricula' screen.

Alternative Scenarios

Step #	What Samantha Does	What Samantha views on screen
5.9.8.8.1	Taps on 'Discard' button.	Warning ~~with~~ message about losing data ~~-~~ 'Are you sure you want to discard? is displayed with ~~You will loose all the data from this session, if you choose to discard." This will have~~ OK and Cancel options.~~Navigated back to the 'Curricula' screen.~~
5.9.8.2	Taps on 'OK' button	Navigated back to the 'Curricula' screen

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5.9.9 Data Synchronization and Other Settings & Options

Data Synchronization and other settings	
Actors: Teacher **User authentication:** User based	**Use Case Number: 5.9.9**
Characteristic Information	
Use Case Goal:	To enable the user to perform actions and use the features available on the options screen, of the application.
Pre-Condition	User should be signed in to the application and should have internet connection for the 'Sync Data' functionality.
Post-Condition	User should be able to use all the features on the 'Options' screen of the application.
Use Case Description	
Step #	**What Olivia does**	**What Olivia views on screen**
5.9.9.1	Taps on the 'Options' tab on the tab bar.	Can view the 'Options' screen on her device.

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Data Synchronization and other settings	
5.9.9.2 Taps on 'Sync data'	Data collected on the device gets synchronized with the ACE Server. Also, updated curriculum information from ACE will be retrieved and updated on the device.
5.9.9.3 Selects 'ON' option from the toggle option available next to 'Show Recommendations', by tapping on the toggle button.	Toggle button with 'ON' option selected is displayed on the screen.
5.9.9.4 Sets 'Auto Sync on Wi-Fi' option to 'ON' by tapping on the toggle button.	Toggle button with 'ON' option selected is displayed on the screen.
5.9.9.5 She is done with setting all her options so plans to sign out of the application, hence taps on the 'Log Out' button.	Navigated back to the 'Login' screen.
Alternative Scenarios	
Step # **What Olivia Does**	**What Olivia views on screen**
Sets 'Show Recommendations' option to 'OFF' by tapping on the	Toggle button with 'OFF' option selected is displayed on the screen.

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Data Synchronization and other settings		
	toggle button.	
	Sets 'Auto Sync on Wi-Fi' option to 'OFF' by tapping on the toggle button.	Toggle button with 'OFF' option selected is displayed on the screen.

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6. Summary of Business Rules

Some of the business rules applicable for various screens of the application are as follows:

Screen/ Functionality	Business Rules
Launching Screen	None

Login Screen	✓ User's account will get locked if the user provides incorrect password for 3 consecutive attempts.
	    o User will receive appropriate warning on first and second incorrect attempts.
	    o At the third attempt, users will be prompted to either request for a password or their account will be locked out at the next incorrect attempt and no validation will be done yet.
	    o If the user dismisses the alert and tries logging in again the 3rd time and is unsuccessful, then the account will get locked.
	✓ At one point of time only one user can be signed in to the application on the device.
	✓ If a previous user had used the device and there are summarized and non-summarized session data on the device, then the second user logging in will be provided with a prompt with [Continue] [Cancel] options. Tapping on Cancel will abort the login process of the second user and retain him/her on the login screen. Tapping on Continue will push all summarized data to the server, and remove all data of the previous user from the device.
	✓ If the same user who used the device previously, logs in afresh, after logging out previously, his/her previous data on the device will be still available.

Log Out	✓ Data for completed sessions will be pushed to ACE Server if WiFi is available and user has chosen to sync automatically on WiFi; any session with partial data will be lost. ✓ User will be prompted if the offline data is not yet synced. ✓ User can decide to sync data during next login. In this case the user will be allowed to exit the app. If the user chooses to Sync before logout then the data will be pushed to ACE server. ✓ Data for all completed sessions will be pushed to the ACE Server and incomplete sessions should be discarded after confirming from user.

Curricula Screen	✓ User can add only upto 10 students (though this value will be configurable in ACE web application)
	✓ To add extra student user will need to delete a student previously on the list.
	✓ To update the curricula for the newly added student, data synchronization is required.
	✓ Only active curriculums that have mobile data collection enable will be listed on the screen.
	The Curriculum List will have the following details for each curriculum (Ordered by objective number
	✓):
	    ▪ Curricula Name
	    ▪ Curricula Type

Comment [A14]: We are re-visiting all Sync related scenarios in conjunction with Mobile devs, On-Premise devs and Azure team. We will finalize this and revert shortly.

Comment [UN15]: Is this a change to prior aproach?

CK – Our thought at the moment is No, Data from any incomplete sessions will be lost if user explicitly chooses to log out. User will be provided a warning message for before this.

We are in the process of re-visiting all sync scenarios and will revert with our inputs

UN- Good with dicussion about limited data loss, with user accepted data loss.

Comment [UN16]: Is it user specific? What if second user logs into the phone, will the first user's data be pushed to ACE? Or will first user have to log back in to push their data?

CK-. Per our initial though process, In case of another user using the device, the second user will receive a prompt to sync the data saved by the previous user. This message will also state that data from previous user's incomplete sessions will be lost.
Though, in this case, only the data from finished sessions will be saved and the data for all partially completed sessions will be lost..

We are in the process of re-visiting all sync scenarios and will revert with our inputs

Comment [UN17]: User can decide to keep incomplete sessions? For example IT taken across multiple days.

CK- We are reviewing this scenario and will revert shortly

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	▪ Objective Number
Add Student	✓ Only the schools registered for mobile data entry would be available in the schools drop down.
	✓ Users will be able to see only those schools in the drop down for which they have permissions.
	✓ User will see only those schools for which they have permissions.
	✓ User can add multiple students from each team by selecting individual student name in the student(s) drop down.
Current session	✓ User will be navigated to this screen only if they select a curriculum from ~~they have one or more~~ the active sessions tab OR if they Start a New Session for a curriculum and continue working on that curriculum.
	✓ This tab will display the most recent curriculum that the user has started working on, for data collection on that device (I.e. this could be the setup/data entry/summary page of any of the curricula).
	✓ If users are on the Session Setup screen of a particular curriculum and then navigate away from the Current Session tab and then re-visit this tab, they should be shown the Session Setup screen of the curriculum that was last being viewed under the Current Session tab. (note: this curriculum is still not an active session, since it hasn't technically been started, for data capture)
	✓ Similarly, if users are on the Session Data Entry/Summary screen of a particular curriculum and the navigate away from this tab and then re-visit this tab by clicking on the Current Session tab in the tab bar, then they will need to be shown the screen they were last on, for that curriculum.
Active Sessions	✓ User will be able to conduct only upto 10 sessions ~~consecutively~~simultaneously.
	✓ This tab will list out all curricula,for which data entry has been started (i.e. users have clicked Start, on the session setup screen), on the device
	✓ On tapping ~~this tab~~any curriculum listed on this screen, users will be navigated to the latest state of the session selected (data entry/summary)
Setup Screen for SA type of curriculum	✓ Sort order of the values in drop down will be same as ACE Web.
	✓ Sub level will default to most recent data entry.
	✓ **Past data should show 5 data entries** for the selected Sub Level.
	✓ Past data will be updated based on the sub-level selected.
	✓ If user enters data for multiple sessions for a single curriculum and has not yet synchronized the data to ACE server, the past data grid will still show the new data in the past data grid.
	✓ Past data will be read only.
	✓ Past Data Grid: Score column = + , +P / Total Opp Formula : Score = (("+" + "+P")/ Total Opp)
Setup Screen for TA type of curriculum	✓ Chaining sequence will be available as read only content and will be populated from ACE Web.
	✓ Training step will be defined at this step itself.
	✓ Training step for Total Task will be **'NA'**.
	✓ Sort order will be same as ACE web.

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	✓ Past data will have data for last 5 sessions. ✓ If user enters data for multiple sessions for a single curriculum and has not yet synchronized the data to ACE server, the past data grid will still show the new data in the past data grid. ✓ Past data will be read only.
Setup Screen for IT type of curriculum	✓ Past data for last 3 weeks (sessions) will be available. ✓ If user enters data for multiple sessions for a single curriculum and has not yet synchronized the data to ACE server, the past data grid will still show the new data in the past data grid. ✓ Past data will refresh based on the context selected in the drop down menu. ✓ Past data will be read only. ✓ ~~For a week ending, the users should not be able to start a session for the same context and~~

Data entry screen for SA type of curriculum	✓ User can parallely enter data for 10 sessions.
	✓ The Options available for SA Data Entry Screen:
	    • NR (No Response)
	    • + (Correct response)
	    • +P (Correct with prompt)
	    • - (Incorrect)
	    • -P (Incorrect even with prompt)
	✓ User will be able to enter data for same or multiple students at the same time.
	✓ User can ~~end~~ summarize the session at any point of time by using the '~~Log Out~~Summarize Data' button.
	✓ User can navigate between sessions at any stage of the session. The data from the paused sessions should be available in same state when user revisits the session.
	✓ Within a trial if user navigates to previous trial, the response registerd by user for that trial will be highlighted.

Data entry screen for TA type of curriculum	✓ The number of steps in this type of curriculum will be finite (as defined in ACE web) ✓ The number of data entry screens in this type of curriculum will be equal to the no. of steps in the curriculum. ✓ Training step will be pre defined at the setup screen so that user can skip to the step with one tap on the screen. The skip to training step button will be disabled for TA curricula having chaining type as Total Task. ✓ User will be able to enter data for same or multiple students at the same time. ✓ User can ~~end~~ summarize the session at any point of time by using the '~~Log Out~~'Summarize data button. ✓ User can navigate between sessions at any stage of the session. The data from the paused sessions should be available in same state when user revisits the session. ✓ For Curricula where the Teaching Procedures do not include Prompt Codes, users will have the following options

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	- +
	- -
	✓ For all other curricula where teaching procedures have prompt codes, users will be show all of these prompt codes as button options. Note: option NA will not be available to users. Also, option '-' will be the last option available on the screen. ~~User will have options for:~~
	~~✓ I (Independent)~~
	~~✓ NA (Not Applicable)~~
	~~✓ ' ' (Incorrect)~~
	✓ Other prompts as applicable depending upon the curriculum selected.
	✓ On selecting to skip to training step the user will be navigated to the data entry screen of the step that has been selected as the training step (This will be applicable only to forward and backward chaining of TA curriculum and will not be applicable to total task chaining. Data entry screen for Total Task chaining will not have the 'Skip to training step' option).~~curricula screen~~.
	✓ Within a session if user navigates to previous step, the response registerd by user for that step will be highlighted.
	✓ Users should be able to navigate from one step to another even without entering data for the step, except for the training step in the case of Forward and Backward chaining type curricula, because the user essentially needs to enter data for the training step, in order to summarize the session data.
Data entry screen for IT type of curriculum	✓ User will be able to enter data for same or multiple students at the same time.
	✓ User will have options for:
	• NR (No Response)
	• + (Correct response)
	• +P (Correct with prompt)
	• - (Incorrect)
	✓ User can ~~end~~ summarize the session at any point of time by using the '~~Log Out~~Summarize Data' button.
	✓ User can navigate between sessions at any stage of the session. The data from the paused sessions should be available in same state when user revisits the session.
	✓ Within a trial if user navigates to previous trial, the response registerd by user for that trial will be highlighted.
	✓ Trial type- The last trial type selected for that week will be taken into account.
Summary screen for SA type of curriculum	✓ Users will have the option to Discard, Resume or Finish data collection for that session
	✓ The summarized Session data will be ~~summarized only after the user taps on 'finish' button and will be~~ available to be saved to ACE Web ~~till~~ when data is synchronized automatically or explicitly , only after users tap the "Finish" button. If the Finish button is not tapped, that session data is considered to be still in the "session summarized but not completed" state, since the user can resume data entry if requried.
	✓ Staff name will be pre-populated based on the initials of first and last name respectively.

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	✓ The Setting & Status values will be same as values in the ACE Web.
	✓ Summary grid will contain summary of ~~scores from various trials (SA & IT)or steps (TA)~~ data across the different trials in that session~~s~~ by data type (i.e. +, +p, -, -p & NR)
	✓ ~~Past Data Grid:~~
	   ~~Score column = + , +P / Total Opp~~
	   ~~Formula : Score = (("+" + "+P")/ Total Opp)~~
	✓ Taping on Resume will take users back to the last trial that they were on, before summarizing data.
	✓ Taping on Discard will discard the data captured in that session, after providing a suitable warning

Summary screen for TA type of curriculum	✓ ~~The number of steps in this type of curriculum will be finite (as defined in ACE web)~~
	✓ ~~The number of data entry screens in this type of curriculum will be equal to the no. of steps in the curriculum.~~
	✓ Users will have the option to Discard, Resume or Finish data collection for that session
	✓ The summarized Session data will be ~~summarized only after the user taps on 'finish' 'Summarize Data' button and will be~~ available to be saved to ACE Web ~~till~~ when data is synchronized automatically or explicitly, only after users tap the "Finish" button. If the Finish button is not tapped, that session data is considered to be still in the "session summarized but not completed" state, since the user can resume data entry if requried.
	✓ Staff name will be pre-populated based on the initials of first and last name.
	✓ The Setting and Status dropdown values will be same as values in the ACE Web.
	✓ The data summary grid will list out all the steps for that curriculum along with the responses registered by the user for each of the steps, in that session
	✓ Training step will be highlighted in a different colour.
	✓ When user clicks on Finish, the Prompt Step should be saved to ACE server. Forward & Backward:
	   o Prompt Step will be the value selected as a response for the training step, provided training step selected on the setup screen is not NA
	   o If the Training Step selected is NA, then Prompt Step = NA
	
	   Total Task:
	   o Training Step is by default NA So, Prompt Step = NA
	
	✓ FSI/LSI/TSI field will be prepopulated based on:
	   o LSI for forward chaining: training step - 1
	   o FSI for backward chaining: training step + 1
	   o TSI for total task = count of all steps with response I
	✓ Forward chaining with all Independent steps: ~~LSI = last step~~If Training Step = Last Step AND Training step Data = "I" THEN LSI=Last step ELSE Training Step – 1

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	✓ Backward chaining with all Independent steps: IF Training Step = Step 1 AND Traing Step Data = "I" THEN FSI = 1 ELSE Training Step +1FSI = Step 1 ✓ Step number will be indicated in Step x/ Total steps format. (Step #/x, where # = TA step currently viewing and x = total number of steps.)
Summary screen for IT type of curriculum	✓ *Same rules applicable as for summary screen for SA type of curriculum.* ✓ Most Intrusive Prompt will be a drop down value and values will be same as ACE web. ✓ MIP (Most Intrusive Prompt) will be dependent on the MIP used across sessions. **MIP = Highest prompt used** ✓ Teachers will need to input the MIP (because the data collection for IT is +, +p,-,NR) ✓ MIP on the session summary screen will default to the MIP displayed on the Session setup screen for that week, provided data entry has been done atleast once for that week.(Else the past data grid will not have any data for the week and MIP on summary screen will not have any default). ✓ Trial type & MIP will be updated, as entered by the last person to enter data, for the week-ending and or based on the MIP entered for (I.e. the last session for the week ending). I.e.: If in a particular week, the user captures data for the same Context multiple times and uses different trial types & MIPs for each session, when summarizing data for that week, the last used trial type and MIP will be the one saved in the summary.
Options screen	✓ Data for all sessions and students will be synchronized when user taps on 'Sync Data'. ✓ By default auto sync on wi-fi will be 'ON'. ✓ By default show recommendations option will be 'ON' ✓ By default no. of hours after which user needs to login will be set as 8 hours.
Data Synchronization	✓ Data on the device will be synchronized everytime a user signs in to the application on the device. ✓ If the user adds a new student, they will need to sync the data expicitly or the auto-sync functionality will be invoked provided the user is on wi-fi. ✓ All the saved data will be retained on the device till it is synchronized. ✓ Data will be automatically synchronized if user has wi-fi connectivity provided the user has set 'auto sync on wi-fi' as 'ON' on the options screen. ✓ On 3g user will have to explicitly sync the data from the 'Options' screen. ✓ Explicit sync will be initiated when the user selects 'Sync data' option on the options screen. ✓ User will receive a warning message before data is synchronized on 3g. ✓ There will also be a periodic sync functionality which will invoke a sync every 2 hours of time provided the user has internet connectivity on the device (only on wi-fi). ✓ Auto sync should be invoked when user taps on finish button on the summary screen o In case of Failure of the data sync action, data for the entire session will be sent to the user even if she has not selected the email option.

Comment [UN18]: This is to say if a user has Wifi, but not run any sessions and clicked Finish, then the data on the phone will refresh with the new data correct?

Will the auto sync only sync those lessons that have been updated. It should not cause loss of data if there are any open sessions (like it does when user explisivly logs out)

CK- We are re-visiting all Sync related scenarios

Comment [UN19]: Is this configrable?

CK- We are thinking of moving away from a timer based approach and having the app attempt to sync data the moment it detects a valid WiFi connection and the user has enable auto-sync on wi-fi

Trial Type	The trial types for all the three kinds of curricula are as follows: ✓ MT (Maintenance) ✓ BL (Baseline) ✓ TR (Training) ✓ PR (Probe) ✓ PT (Post Test) The trial types will appear in the same sort order as present on the ACE Web Application

7. Non-Functional Requirements

✓ Supported OS
  1. iPhone 3G, iOS 4.2.1
  2. iPhone 3GS, iOS 4.3.3
  3. iPhone 4, iOS 4.3.3
  4. iPod Touch 2nd generation, iOS 4.2.1
  5. iPod Touch 3rd generation, iOS 4.3.3
  6. iPod Touch 4th generation, iOS 4.3.3

✓ Supported Resolution
  1. 320 * 480 px
  2. 640 * 960 px

Comment [UN20]: What about iphone 4S and 5.1.1 ? Will newer iOS work with this application? What about iphone 5?

CK- Yes the app will work fine with devices running iOS 4.x and 5.x.

8. Impact on Existing Application

The following changes will have to be made to the existing modules of Autism Curriculum Encyclopedia for enabling proper functioning of mobile data collection application:

8.1 Content Module

✓ Draft and published curriculum metadata screen will be updated based on changes to be made from the mobile application.
✓ Users will be provided a radio button option to Enable/Disable mobile data entry for a particular curriculum, in the Edit Curriculum Metadata screen
✓ When going live, –'Yes' option should be selected for 'Enable Mobile data entry' radio button option in the Draft & Published Curriculum screen of ACE application.. This is to be taken care of, as a one-time update prior to going live.
✓ The grids listing out curricula on the Draft, Published and Discontinued screens will also be updated to include a "Mobile Data Entry" column which will contain a color coded mobile icon to indicate whether mobile data entry has been enable for that curriculum or not.
    o A black color icon will indicate that mobile data entry has not been enabled for that curriculum
    o An amber color icon will indicate that mobile data entry has been enabled by the admin, for that curriculum

8.2 Curriculum Module:

✓ An "Enable Mobile Data Entry" radio button will be provided on the Data Entry page of the active curriculum using which teachers can enable/disable Mobile Data collection for the student, for that particular curriculum.

  o By default, this option will be set to "No" for all student curricula

  o If a school does not have mobile data entry enabled, this radio button on the data entry screen will be set to No and disabled

  o Likewise, if super admins have not enabled mobile data entry for that curriculum, this radio button option on the data entry screen will be set to No and disabled.

- ✓ In the curriculum module, the grids on the Active Curricula Screen and the Curriculum Bank screens will be updated to include a "Mobile Data Entry" column which will contain a color coded icon to indicate whether the admin has awarded mobile data entry permissions to that curriculum or not and whether a teacher has enabled mobile data entry for a student's active curriculum.
- ✓ A green indicator will be displayed under the column 'Mobile Data Entry' against all active curricula for which mobile data entry is ~~available~~ enabled at the curriculum level and at the student' active curriculum level, on the data entry screen~~is enabled. This change will be updated on the Active curricula screen as well as the Curriculum bank in the curriculum module~~.
- ✓ ~~Whereas, the active~~ Active student curricula for which mobile data entry is ~~available~~ enabled at curriculum level but not enabled at student curriculum level will have an amber icon next to them.
- ✓ The ~~active~~ curricula for which mobile data entry is not ~~available~~ enabled at the curriculum level itself will have a black indicator next to it.
- ✓ ~~A toggle button will be provided on the Data Entry page of the active curriculum in order to enable Mobile Data collection for the student~~.

Comment [UN21]: So if I under stand the coding is:

Black = Mobile data is not avaliable.
Green = Mobile for Lesson is avaliable AND Mobile activated for that Student's Active lesson
Amber = Mobile for Lesson is avaliable, Mobile not activated for that student.

CK- Absolutely Correct.

Comment [UN22]: By default, Mobile data will be turned off for any current or activated lesson for a school with mobile access.

CK- Yes.

How will Banks (active and bank) look for those schools that do not have mobile feature added? Will they see it as an option but does not do anthing, will it be greyed out or not visable?

CK – The icon indicator on the Curriculum Bank and Active curriculum screens are irrespective of the School level permissions for mobile data entry. These are more indicative of whether a curriculum has been awarded mobile data entry permissions by the super admin and if teachers have enabled it for a student's active curriculum or not.

Banks for schools that have/do not have mobile data entry will look the same. The color coded icons are read only and not actionable.

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8.3 Admin Module (Manage Schools):

Users will be provided an option to enable mobile data entry by selecting the radio button 'Yes' for enabling mobile data entry while adding or editing school information in the Admin module.

Comment [UN23]: If mobile is removed, how does application handle? How does it handle mobile log ins?

CK- If mobile data entry is revoked, users will not see this school listed, when trying to add a new student into their My Student's list.

CK - Consider the case where a teacher has added a student from School 1 and then goes offline and collects data. While data collection is happening, assume the admin revokes mobile data entry permission for that school.
At the time of sync-ing data, the server will validate if the school, Global curriculum bank & student curriculum have mobile data entry enabled. If any of them returns a false, then the data will not be udpated in the data entry tables of the ACE application and will be emailed to the user, stating that the data could not be saved to the DB, as one/more permissions for mobile data entry have been revoked.

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## 9. System Acceptance Criteria

✓ All functionalities defined in this requirements specification document should work as specified.

✓ Users should be able to perform all actions as mentioned and specified in this document.

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10. Appendix 1 (Alerts and Recommendations)

The alerts and recommendation messages that will appear on various screens of the application ~~are as follows~~can be found in the file embedded below:

📊 ACE MobileMessageStrings

📊 ACEMobileMessageString 0712 UN.xlsx
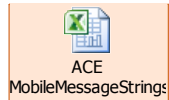
> **Comment [P24]:** I noticed the logout messages were not included, are we holding off on these until the data sync is worked out?
>
> [CK 7/16] Yes, we will update this once the data sync part is cleared up.

~~Functionality~~	~~Scenario / Logic~~	~~Message String~~	~~Considerations~~
~~Login~~	~~User ID or password incorrect in first attempt~~	~~"User ID and/or Password incorrect. Please provide valid credentials to login."~~	~~Either User ID or Password incorrect.~~
~~Login~~	~~User ID or password incorrect in 2nd attempt~~	~~"If you are unsure of your password, please request a new password or your account will be locked on your next incorrect attempt."~~	~~Will be valid only if User ID provided is correct.~~
~~Login~~	~~Password incorrect in 3rd attempt~~	~~"Your account has been locked. Please contact the administrator for assistance.~~ ~~Your account is locked out. Please contact Administrator for unlocking your account."~~	~~Provided User ID provided was correct for all the three times.~~
~~Login~~	~~Request Password~~	~~"Your password rRequest has been received and a new password will be sent to your registered email ID."~~	~~User should press 'continue' at this step.~~
~~Log Out~~	~~If user has partial data entry and tries to logout.~~	~~"You have ongoing trial sessions. Are you sure you want to log out?""All in progress sessions will be lost if some other user logs in to the phone"~~	~~Data for completed sessions will be pushed to ACE Server. Any session with partial data will be lost.~~
~~Data Synchronization on 3G~~	~~If user plans to synchronize the data on 3G connection.~~	~~"Your provider might charge for the data. Are you sure you want to sync now?"~~	

> **Comment [UN25]:** We would like some time to review and edit message strings more. When is this needed by?
>
> CK- It would be fine if we can get this by 7/25

> **Comment [UN26]:** Can you log out and keep partial data for later? IT.
> This will help us with what message will need to be.
>
> "You have ongoing trial sessions. Are you sure you want to log out?"
>
> CK- We will not retain any data on the device once the user signs out of the application. Data for all the completed sessions will be synced at log out.

> **Comment [UN27]:** Still thinking

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Add Student	Addition of students beyond 10 students.	"You already have 10 students on your list. Please delete remove atleast one student to add new student."	Application will allow data entry for up to 10 students at a time hence students list is being limited to 10 students.
Delete Student	Confirmation message before deleting a student	"Are you sure you want to remove delete <Student name> from the list of students?	Should select appropriate action to proceed.
Active Sessions / current session	If there are no active/current sessions but the user still taps on the 'active Sessions' tab.	"There are no active sessions at the moment."	This message will also be applicable for the current sessions tab.
Active sessions	Addition of sessions beyond 10 sessions	"Mobile data entry allows for 10 sessions at a time.You can't have more than 10 active sessions. Please finish atleast one session to start a new session."	Mobile data entry application will allow only 10 sessions at a time, hence user will not be able to start the 11th session.
Log out	Log out in between session before summarizing data	"You have ongoing trial sessions. Are you sure you want to log out?"	Only when user has active session(s) for which data is not summarized.
SA Session Setup Screen	Given "Past Data Grid" showing last five data points listed in chronological order; analyze the **two most recent data points**. If both data points score >= 80% Correct Independent. Percent Correct Independent = **(Total CorrectIndependent / TotalOpportunities)***100 - ACE DB Data Source: StuSADataEntry	Two consecutive sessions at 80% Independence or better.	Will get this message every time someone changes to a sub level that has been mastered. Unless we change the logic to not do this validation if one of the last two sessions has Trial Type = MT Note: Get the values of "+" & "+P" from Server and store on the device.
SA Session Setup Screen	Given "Past Data Grid" showing last five data points listed in chronological order; analyze the **two most recent data points**. If both data points score <= 60% Correct. Percent Correct = (**[CorrectIndependent + CorrectPrompted] / TotalOpportunities**)*100	Two consecutive sessions at 60% correct or less.	If running 5 trial session, will get this message possibly more often than 9 trials.

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	~~-~~ ~~ACE DB Data Source: StuSADataEntry~~		~~5 trial - having two errors in two consecutive sessions will result in this message.~~ ~~9 trial - having 4 errors in two consecutive sessions will result in this message.~~
~~SA Within Trial Data~~	~~Given data entry; after 2 consecutive errors.~~ ~~-~~ ~~Errors = IncorrectIndependent (" " button)~~ ~~= IncorrectPrompted ("-p" button)~~ ~~-~~ ~~This validation would occur after each trial data is entered, validating trial just entered, and the one prior. A moving window of two trials. Warning would appear on screen of next trial.~~	~~Two consecutive errors recorded within a session.~~	~~User will have to clear warning in order to continue on with data collection.~~ ~~-~~ ~~Problem if user is collecting baseline. Could be corrected if we add logic to not run this validation if Trial type = BL~~ ~~Warning is shown in Trial 3 if:~~ ~~Trial 1 : -, Trial 2: -~~ ~~Trial 1 : -, Trial 2: -P~~ ~~Trial 1 : -P, Trial 2: -P~~ ~~Trial 1 : -P, Trial 2: -~~ ~~-~~ ~~-~~
~~SA Within Trial Data~~	~~Given data entry; after 3 cumulated errors.~~ ~~-~~ ~~Errors = IncorrectIndependent (" " button)~~ ~~- IncorrectPrompted ("-p" button)~~	~~Three errors recorded within a session.~~	~~User will have to clear warning in order to continue on with data collection.~~ ~~-~~ ~~Problem if user is collecting baseline. Could be corrected if we add logic to not run this validation if Trial type = BL~~ ~~Rules:~~ ~~Trial 1 : -, Trial 3: -P, Trial 6: - (Warning is shown in Trial 7)~~ ~~Trial 1 : -, Trial 3: -P, Trial 8: -P~~

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		Trial 3 : - P, Trial 6: -P, Trial 7: -P Trial 1 : - P, Trial 3: - , Trial 4: -P Trial 1 : - P, Trial 2: -P, Trial 3: - (In this case, there will 2 warnings - 1 after trial 2 and the second after Trial 3)
	- This validation would occur after each trial data is entered. Warning would appear on screen of next trial.	- -
IT Session Setup Screen	Given "Past Data Grid" showing last five weeks listed in chronological order; analyze the **two most recent week's data points**. If both data points score >= 80% Correct Independent. Percent Correct Independent = (**Total CorrectIndependent** / **TotalOpportunities**)*100 - ACE DB Data Source: StuITDataEntry	Two consecutive weeks at 80% Independence or better.	Won't be a problem with mastered context until we fix the mastered context being an option. Could do similar and exclude this validation if Trial Type = MT
IT Session Setup Screen	Given "Past Data Grid" showing last five data points listed in chronological order; analyze the **two most recent data points**. If both data points score <= 60% Correct. Percent Correct = ((**CorrectIndependent** + **CorrectPrompted**) / **TotalOpportunities**)*100 - ACE DB Data Source: StuITDataEntry	Two consecutive weeks at 60% correct or less.	-
TA Session Setup Screen: **Forward and Backward Chain TA**	Given "Past Data Grid" showing last five data points listed in chronological order; analyze two most recent data points. If both data points have same training step (**TrainStep**) and both have **PromptLevelId** = Independent. ACE DB Data Source: StuTADataEntry and MstContentValue	Two consecutive sessions with 'I' recorded for training step.	-

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~~TA Session Setup Screen: **Forward and Backward Chain TA**~~	~~Given "Past Data Grid" showing last five data points listed in chronological order; analyze two most recent data points. If past two data points have error on same step, display warning.~~ ~~-~~ ~~ACE DB Data Source: None, TBD, need new field to log ErrorSteps. Requires within trial data to be collected, given a training step:~~ ~~**Forward**: Any code not "I" or "NA" on previously mastered steps is an error. **ForwardPreMastered Steps** = All steps prior to TrainStep - 1~~ ~~**Backward**: Any code not "I" or "NA" on previously mastered steps is an error. **BackwardPreMastered Steps** = All steps after TrainStep, not including TrainStep.~~	~~Two consecutive sessions with error(s) on previously mastered step(s) (ErrorStep*).~~ ~~-~~ ~~-~~ ~~*Where ErrorStep = step number for which error was logged in both sessions.~~ ~~-~~	~~How do we handle multiple ErrorSteps (i.e. error on both step 2 and 5, on both sessions) - would it state "**Two consecutive sessions with errors on previously mastered step(s) 2, 5**"~~ ~~-~~ ~~Could be problem if Trial Type = BL, PT, PR but Training step was NOT set to NA.~~ ~~-~~ ~~Current assumption logic is if~~
~~TA Session Setup Screen: **Total Task Chain TA**~~	~~Given "Past Data Grid" showing last five data points listed in chronological order; calculate average Independence for oldest 3 sessions and newest three sessions, and compare values. If average 2 (newest three sessions) NOT 100% AND <= to Average 1 (oldest three sessions); display message.~~ ~~Independence per session = (**StepIndependent** / Total Steps in TA)*100.~~ ~~ACE DB Data Source: StuTADataEntry and CurTAStepSummary?~~	~~No change or decrease in independence over past 5 sessions.~~	~~Would need to exclude if average is 100%.~~

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11.Appendix 2 (Data Field Details)

11.1 Login Screen

Field Name	Field Type	Data	Data Type	Default Value
User ID	Text Box	User's registered email ID	Valid email ID	None
Password	Text Box	User defined password (alpha numeric)	Alphanumeric	None

11.2 Add Student Screen

Field Name	Field Type	Data	Data Type	Default Value
School	Drop Down/Picker	Schools to which teacher has access (alpha numeric)		~~None~~First value in drop down
Team	Drop down menu/Picker	Teams within the selected school		~~None~~First team in the list of teams belonging to the school selected
Student Name	drop down/Grid	Relevant Student names	Alphanumeric	None

11.3 Trial Setup Screen– SA type of curriculum

Field Name	Field Type	Data	Data Type	Default Value
Sub-Level	Drop down menu	Relevant Sub-level for the curriculum selected		Most Recent data entry
Step	Drop down menu	Relevant steps ~~for~~ of the ~~curriculum sub-level~~ teaching procedure associated with the level to which the selected sublevel belongs		~~None~~First value in drop down
Trial Type	Drop down menu	Defined Trial types		~~None~~First value in drop down

11.4 Trial Setup Screen– TA type of curriculum

Field Name	Field Type	Data	Data Type	Default Value
Trial Type	Drop down menu	Defined Trial types		~~None~~First value in drop down
Training Step	Drop down menu	Training step defined for the ~~curriculum~~ student		~~None~~first value in drop down
~~Chaining Sequence~~	~~Text~~	~~Backward, Forward or Total~~	~~Text~~	~~Pre populated~~

11.5 Trial Setup Screen– IT type of curriculum

Field Name	Field Type	Data	Data Type	Default Value
Context	Drop down menu	Context relevant to the curriculum		~~None~~First Context in drop down
Trial Type	Drop down menu	Defined Trial Types		~~None~~First Trial Type in drop down

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11.6   Summary Screen– SA type of curriculum

Field Name	Field Type	Data	Data Type	Default Value
Staff	Text Box	Name of the Teacher who conducted the session	Alphanumeric	Initials of the first and last name
Setting	Drop down menu	Options Populated from ACEPredefined setting in which session is conducted		School 1 or first dropdown valueNone
Status	Drop down menu	Options Populated from ACEStatus of the student's mastery of the curriculum after the trial session.		NoneIn Progress
Email session Data	Toggle	ON or OFF	NA	OFF

11.7   Summary Screen– TA type of curriculum

Field Name	Field Type	Data	Data Type	Default Value
Staff	Text Box	Name of the Teacher who conducted the session	Alphanumeric	Initials of the first and last name.
Last Step Independent (Forward Chain); First Step Independent (Backward Chain); Total Steps Independent (Total Task)First Step Independent	Drop down menu	First step independent defined for the student for this particuar curriculum		LSI (Forward(Backward chaining) : **Training step -1** FSI (Forward Backward chaining): **Training step +1** TSI (Total StepTask): **None.** Count of all steps with Response I, or count of all steps with repsonse "+" if it does not have defined step codes (i.e. Graduated Guidance) Logic from TA Summary Screen specs above.takes into account if all steps mastered.
Setting	Drop down menu	Predefined setting in which session is conducted		First item in dropdown
Status	Drop down menu	Status of the student's mastery of the curriculum after the trial session.		NoneIn Progress
No. trials	Drop down menu	No. of trials conducted in		1

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		the session		
Email session Data	Toggle button	ON or OFF	NA	OFF

11.8   Summary Screen– IT type of curriculum

Field Name	Field Type	Data	Data Type	Default Value
Staff	Text box	Name of the Teacher who conducted the session	Alphanumeric	Initials of the first and last name respectively
Setting	Drop down menu	Predefined setting in which session is conducted		~~None~~First item in the drop down (school 1)
Status	Drop down menu	Status of the student's mastery of the curriculum after the trial session.		~~None~~In Progress
MIP	Drop down menu	~~Most Intrusive prompt used (Populated based on ACE for that lesson that student.~~ ~~)~~ List of Prompts defined in the selected student's curriculum		~~None~~ First item in the drop down
Email session data	Toggle button	ON or OFF	NA	OFF

11.9   Options Screen

Field Name	Field Type	Data	Data Type	Default Value
Sync Data	Button			
Show Recommendations	Toggle button	ON or OFF option to enable or disable Recommendations related to the setup (based on past data) and data entry screen.	NA	ON
Auto Sync on Wi-Fi	Toggle Button	ON or OFF option to enable or disable auto sync on wi-fi	NA	ON
Request Login After (Hrs)	Drop Down	Drop down Values 1-12	Numeric	8

Comment [P32]: First in dropdown, (School 1)

[CK 7/16] Updated the statement

Comment [P33]: Status from current Weeks data as shown in Past Data grid If it already on the phone? Not a stoper, Can this be done on later build?

[CK 7/16] For now, we can default it "In Progress". We will not be doing any calculated pre-population, to keep the complexity low for now. We can address this in the next version of the app, if required.

Updated the statement accordingly

Comment [P34]: If phone having past data for this context, this week period, default to MIP displayed in Past data grid. If it already on the phone? Not a stoper, Can this be done on later build?

[CK 7/16] For now, we can default it to the first option in the drop down. We will not be doing any calculated pre-population, to keep the complexity low for now. We can address this in the next version of the app, if required.

Updated the statement accordingly

12. Acceptance Agreement

By signing below, we represent that we have read, fully understand, and accept the terms of this document. Any changes to the terms in this document must be submitted via the Change Request Form, reviewed and agreed upon by both parties, and attached to this document. We also understand that subsequent changes to this document may directly impact projected schedule and budget estimates.

Aditi Technologies Pvt. Ltd.   NECC

By: _____   **By:** _____

Name: _____   **Name:** _____

Title: _____   **Title:** _____

Date: _____   **Date:** _____

Notes:

How to handle changes in TP between sync's
If failed sync gets emailed – format? For each type.
        In email, provide reason why sync did not happen.
TA – need to mention that the steps with errors will be tracked.

Need to see what the email will look like.
        Sync Failure Message
        Data in readable Format

Comment [UN35]: Notes to be addressed.

CK – we are working on re-visiting all sync related scenarios in conjunction with the iOS developers and the on-premise developers to find the most optimal approach. We will revert with our inputs shortly.

Comment [P36]: Added notes yet to be reviewed.