**Supplemental Materials: Composite Variable Coding Notes**

This supplemental materials file is meant to accompany the manuscript: Finley, J. R., Naaz, F., & Goh, F. W. (2017, submitted). The interplay of internal and external memory.

Below we provide notes on the coding scheme used to code responses to qualitative questions that were used in creation of the composite variables (see Appendix C in the complete manuscript, Table AC1). We only include notes on the categories that were used for the composite variables. Coding was performed by author FWG, working with author JRF through several iterations to develop categories of common themes of responses for each question and to resolve coding of ambiguous responses through discussion.

* **Q112**
  + C3. EM Use: Low Tech
    - 112\_Physical Notes: notes, journal, sticky notes/Post-its, organizer, pen and paper to-do lists, shopping lists, "lists"/"checklist" (assume physical paper-pencil list), address books, writing things down, black/white board, flash cards, "notepad" (if not clearly stated that it's the digital program), writing notes on hand
  + C4. EM Use: High Tech
    - 112\_Recordings: videos, voice recordings, voicemail
    - 112\_Computer: laptop, files on computers, Notepad app, Notepad++ app, text files
    - 112\_Phone: apps, to-do list on phone, cellphone, smartphone
    - 112\_External Hard Drive: flash drive, thumb drive, hard drive, cd-rs (CD-Rs)
    - 112\_Cloud: Dropbox, Google Drive, Google Platform
    - 112\_Digital Notes: to-do lists on devices, digital sticky notes, password manager apps (e.g. Memengo Wallet, mSecure, LastPass, 1Password), ".txt files"/text files (e.g. MS Excel, Word), apps that store info/lists (e.g. notepad/reminder/grocery list/memo apps), digital agendas, ColorNote, Evernote, Google Keep (or "Google notes"), Moleskine app, Multilist, My Effectiveness, Paper app, Trello, Wordpad, Wunderlist, "keywords stored on my computer" (participant #270), saving phone numbers in phone, "contact list" (participant #444)
    - 112\_Social Media: Facebook
    - 112\_Internet: bookmarks in browsers, Google, "search functions" (participant #106), online services (e.g. online banking. See participant #305)
    - 112\_Text (check "112\_Phone" category as well whenever participants indicate use of texting): "SMS"
    - 112\_Email: send emails, starring important emails, email notifications, Gmail, Outlook
    - 112\_Digital Assistant: GPS, Google Now, Siri
    - 112\_Digital Calendar: Google calendar, calendar on email (e.g. MS Outlook), calendar apps, phone calendar, iCal
    - 112\_Alarm: timer, "notifications", alerts and reminders in phones/computers, specified calendar alerts (see participant #235), Alarm++ (check "112\_Computer" category as well), alarm clock (participant #417)
* **Q114**
  + C3. EM Use: Low Tech
    - 114\_Calendar: "Date book" (participant #30), paper agenda (participant #46), planner (code under "114\_Physical Notebook" as well), "agenda book with calendar" (participant #223) because there's a calendar with the agenda.
    - 114\_Pen & Paper: Grocery/shopping/to-do lists on paper, index cards, memo/notepad, notepaper, post-it notes, "appointment cards, prescription slips, pertinent flyers and/or business cards" (participant #163), "notes" (participant #246)
    - 114\_Physical Notebook: Address book, binder, journal, memo book, organizer, planner, "notebook" (assume it's not digital notebook), "little black book" (participant #432)
  + C4. EM Use: High Tech
    - 114\_Phone: Cell phone, mobile phone, "phone", smartphone (check "114\_Smartphone" as well), "regular phone" (participant #261)
    - 114\_Smartphone: Participant must explicitly state "smartphone". If response states "cell phone" but mentions apps, assume it's a smartphone too (e.g. participant #469, 475).
    - 114\_Computer: Chromebook, laptop
    - 114\_E-Reader: Kindle (participants #15, 421)
    - 114\_Flash Drive: Jump drive, thumb drive, "USB pens" (participant #103)
    - 114\_Memory Card: SD card, "Sandisk card" (participant #204)
    - 114\_External Drive: SSD (solid state drive), iPod (participant #353)
    - 114\_Wearable Tech: Apple watch, "smartwatch"
* **Q115**
  + C3. EM Use: Low Tech
    - 115\_Physical Notebook: Address book, binder, composition book, date book, diary, filofax, journal, memo book, planner, "notebook" (assume it's not digital notebook)
    - 115\_Other Physical References: Books (dictionary, atlas), documents, files, folders, paperwork, phone book, postcards, rolodex (e.g. participants #46, 87, 136, 177). "Cheat sheets" (participant #46), "boxes with special items" (participant #261), artwork (participant #277)
    - 115\_Pen & Paper: Grocery/shopping/to-do lists on paper, index cards, legal pad, memo/notepad, notepaper, post-it notes, "notes", spiral-bound tablet (participant #289), "stickies" (participant #390), "pads" (participant #419)
    - 115\_Calendar: Agenda, date book (code under "115\_Physical Notebook" as well, e.g. participant #153), planner (code under "115\_Physical Notebook" as well)
    - 115\_Board: Blackboard, bulletin board, chalkboard, cork board, dry erase board, whiteboard, "push board" (participant #52), "magic erase board" (participant #160), "hallway board" (participant #172)
  + C4. EM Use: High Tech
    - 115\_Phone: Cell phone, mobile phone, "phone", smartphone (check "115\_Smartphone" as well)
    - 115\_Smartphone: Participant must explicitly state "smartphone". If response states "cell phone" but mentions apps, assume it's a smartphone too. iPhone
    - 115\_Computer: Chromebook, desktop pc, laptop. Participant #157 coded here because to use an internal hard drive, you need a computer to put it in.
    - 115\_Tablet: iPad, Kindle Fire, writing tablet (participant #216). Participant #378's response of "Kindle" coded here because participant states it's used for books and games, so the Kindle must serve more than just an e-reader function.
    - 115\_E-Reader: Kindle
    - 115\_Flash Drive: Flash disk, jump drive, thumb drive, "memory sticks" (participant #109), "USB drive" (participant #268), "USB" (participant #274)
    - 115\_Memory Card: SD card, "media cards" (participant #100)
    - 115\_Hard Drive: External hard drive, internal hard drive, iPod (participant #100), "backup hard drive" (participant #42)
    - 115\_CD: CD, DVD (e.g. participant #40), "mini DV cassettes" (participant #479)
    - 115\_Digital Assistant: Amazon Echo (participant #54)
    - 115\_Camera
    - 115\_Digital Recorders: (e.g. participant #50), voice recorders
    - 115\_DVR: Participants #198, 205, 255
    - 115\_Photos: Photos, photo albums, pictures
    - 115\_Recordings: Videos
    - 115\_Digital Notes: Bookmarks on computer (participant #126), notepad on computer (participant #202), sticky notes on computer (participant #360), "computer files" (participant #338), Evernote (participant #491)
* **Q116**
  + C3. EM Use: Low Tech
    - 116\_Physical Notebook: Address book, binder, composition book, date book, diary, filofax, journal, lab book (e.g. participant #376), memo book, organizer, planner, "notebook" (assume it's not digital notebook)
    - 116\_Other Physical References: Books, documents, files, folders, phone book, postcards (participant #390), rolodex (participant #119). "Print out of phone numbers" (participant #38), "cheat sheets" (participant #46), "sorted piles" (participant #53), "work sheets" (participant #195), "miscellaneous papers" (participant #387)
    - 116\_Pen & Paper: Legal/paper pads, lists, notepad, notepaper, notebook paper, post-it/sticky notes, scratch paper, "notes", notes on boards (e.g. participant #302), "stickies" (participant #390), blotter (participant #468)
    - 116\_Calendar: Agenda, date book, organizer, planner (code all under "116\_Physical Notebook" as well)
    - 116\_Board: Bulletin board, whiteboard
  + C4. EM Use: High Tech
    - 116\_Phone: Cell phone, mobile phone, smartphone (check "116\_Smartphone" as well), "phone"
    - 116\_Smartphone: Participant must explicitly state "smartphone". If response states "cell phone" but mentions apps, assume it's a smartphone too. iPhone
    - 116\_Computer : Chromebook, desktop pc, "desktop", laptop
    - 116\_Tablet: iPad
    - 116\_E-Reader: Kindle, Pocketbook (participant #275)
    - 116\_Flash Drive: Thumb drive, "USB drive" (participant #268)
    - 116\_Memory Card: SD card
    - 116\_Hard Drive: External hard drive, internal hard drive, iPod, portable hard drive, "computer's memory" (participant #157)
    - 116\_CD: CD, DVD
    - 116\_Cameras
    - 116\_Digital Recorders: Voice recorder
    - 116\_Photos
    - 116\_Recordings: Videos, recordings
    - 116\_Digital Notes: Cloud (participant #504), email notifications (e.g. participant #198), emails (e.g. Microsoft Outlook, participant #295), digital sticky notes (e.g. participant #387), notes in computer (e.g. participants #134, 202), "computer files" (participant #338, code in "116\_Computer" as well because you need a computer to access computer files), "online databases with work-related information" (participant #386)
    - 116\_Wearable Tech: "Smart watch" (participant #56)
* **Q128**
  + C3. EM Use: Low Tech
    - 128\_Boards: Whiteboard
    - 128\_Physical Notebook: Address book, filofax, organizer, (day) planner, "notebook" (assume it's not a digital notebook), "day timer" (participant #424)
    - 128\_Pen & Paper: Appointment cards, lists on paper, memo/note pads, notepaper, post-it notes, "notes", "I make a calendar for the week with pen and paper" (participant #107, also coded under "128\_Calendar"), "I write them down" (participant #121), "I sometimes write down appointments" (participant #146)
    - 128\_Physical Calendar: Appointment book, agenda, date book, organizer, (day) planner (code these under "128\_Physical Notebook" as well unless it’s implied they're digital). "Dry erase calendar" (participant #104)
  + C4. EM Use: High Tech
    - 128\_Phone: Cell phone, mobile phone, "phone", smartphone (check "114\_Smartphone" as well), "regular phone" (participant #261)
    - 128\_Smartphone: Participant must explicitly state "smartphone". If response states "cell phone" but mentions apps, assume it's a smartphone too.
    - 128\_Computer: Laptop, PC reminders, spreadsheet, Sticky Notes, WordPad
    - 128\_Tablet: iPad
    - 128\_Apps: When participants state that they use downloaded notification/reminder apps to remind them of events/appointments. In-built apps that come with phones/computers (such as phone calendars, notes; Notepad on computer, Os X calendars) not included in this category. Alarm++, Cozi, Evernote, Google Calendar/Keep, Mint (participant #53), Multilist, My Effectiveness, Microsoft Outlook, Gmail, Windows Calendar, Wunderlist, when participants state "calendar app" only (because it could refer to a downloaded calendar app).
    - 128\_Digital Assistant: Google Now, Siri (participants #175, 235, 370, 440).
    - 128\_Email: When participants state that they send emails to themselves as reminders (participants #74, 355, 425, 438, 452, 455).
    - 128\_Social Media: Facebook
    - 128\_Digital Calendar: Do not check "128\_Physical Calendar". Calendars in email, Google Calendar, "computerized day planner" (participant #14), "technical calendars" (participant #276)
    - 128\_Wearable Tech: Apple watch, "smartwatch"
    - 128\_Alarms\_Notifications: When participants state that they use digital alarms, alerts, notifications, reminders to remind them of events/appointments. Includes in-built phone alarms and notifications. Alarm clocks, push notifications, text message reminders (participants #94, 214), timers