

Engagement Survey Technical Report

Eagle I.O

Most recently updated 2020-11-05

Contents

1	Home	5
2	Introduction	7
2.1	Intended Structure	8
3	Instrument creation	11
3.1	Item generation	11
3.2	Content Validation	12
3.3	Administration condition	12
4	Results	15
4.1	Pilot	15
4.1.1	Sampling strategy (pilot)	16
4.2	Demographic Information	16
4.3	Construct and Criterion-related Validation	17
5	Future plans	19
5.1	Things to do	19
6	Author bios	21
7	References	23

A Timeline of events	25
A.1 Feb 20.2020 (Considering removing fulfillment)	25
A.2 Definitional amendments as of 02.24.2020	25
A.3 Definitions as of 5/19/2020	26
B Pilot conditions	27
C Qualitative item characteristics	55
C.1 Frequency distributions by dimension	56
C.2 Tables of qualitative indices	58

Chapter 1

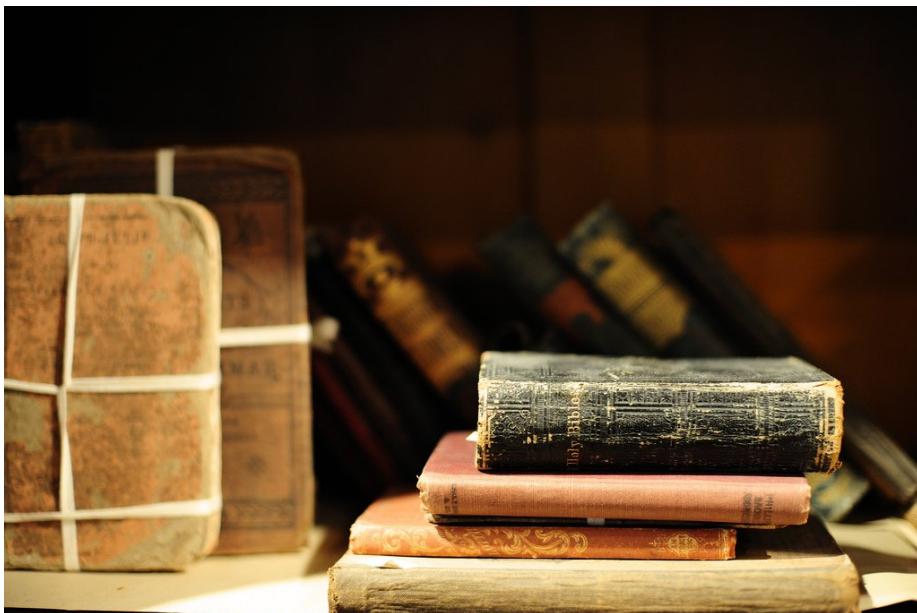
Home



This is a report that documents the technical details regarding the development of the Eagle I.O Engagement survey.

Chapter 2

Introduction



Work engagement is the mental state where employees...

- ...feel full with physical energy (**Vigor**)
- ...are enthusiastic about the content of their work and the things they do (**Dedication**)
- ...are so immersed in their work activities that time seems to fly (**Absorption**)

These above definitions come from Bakker and Demerouti.

The tripartite substantive model of employee engagement is also partially informed by the definitions provided with the Utrecht Work Engagement Scale [Schaufeli and Bakker, b].

We lost the document where we had saved the citations for the creation of our engagement dimensions. we found it today (02/04/2020). Three out of the four dimensions (Dedication, Vigor, and Absorption) came from Schaufeli et al., and we are trying to find where Fulfillment came from. We are also trying to improve the definition of each domain by looking at the current items and conducting a Modified Q sort (not correct name) to create piles of items that have commonalities within each domain.

2.1 Intended Structure

At some point we decided to attempt an *a priori* bi-factor structure, whereby each of the substantive dimensions (Dedication, Vigor, and Absorption)¹ could further be deconstructed into the attitudinal elements of Cognition, Affect, and Behavior. Through item-writing and revision, it began to dawn on us that the substantive elements may already reflect the Cognition (Vigor), Affect (Absorption), and Behavioral (Dedication) dimensions.

As of August, 2012, we could not locate a source article that made this alignment explicit, so we persisted through crafting items that reflected Cognitive, Affective, and Behavioral indicators of each substantive dimension.

The most relevant acknowledgement of this potential confound was made by Schaufeli et al. (p. ??):

Hence, engagement is defined as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. Rather than a momentary and specific state, engagement refers to a more persistent and pervasive affective cognitive state that is not focused on any particular object, event, individual, or behavior. Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence even in the face of difficulties. Dedication is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge. Instead of involvement we prefer to use the term dedication. Although, involvement – like dedication (see above) – is usually defined in terms of psychological identification with one's work or one's job (Kanungo, 1982; Lawler and Hall, 1970), whereby the latter goes one step beyond, both quantitatively as well as qualitatively. In a qualitative sense, dedication refers to a particularly

¹We also discovered at this point that some contagious agent has infiltrated the minds of people working on this project, such that the word, “absorption” confounds our spelling abilities, and roughly 50% of the time ends up being spelled (misspelled?), “absorbtion”...

strong involvement that goes one step further than the usual level of identification.

The survey is intentionally complex in terms of item and scale associations. There are three substantive engagement dimensions as well as three attitudinal dimensions, and item cross-loadings are intended to fully exhaust the 3 x 3 conditions (e.g., each item loads on one substantive and one attitudinal dimension):

Substantive	Attitudinal
Dedication	Affective
Absorption	Behavioral
Vigor	Cognitive

The feedback report uses the terms, “feel”, “do”, and “think” instead of the Psychological literature-based affect, behavior, and cognition [see, for example, Eagly and Chaiken, 1993].

Chapter 3

Instrument creation



3.1 Item generation

After content validation but prior to settling on 4 candidate items per 3x3 condition, there was a dearth of items within some of the Affective, Cognitive, or Behavioral item groupings. We generated additional candidates at this point and have these items located here (Montclair State University e-mail needed to access). It was from this larger list of (reduced) candidate items that the 36

pilot candidates were identified (and in some cases modified, edited, or otherwise further crafted)

3.2 Content Validation

7 Eagle I.O consultants were twice instructed to place each of 34 items into one of three categories: Absorption, Dedication, or Vigor, and Cognitive, Affective, or Behavioral. Instructions asked each rater to:

INSTRUCTIONS: Place an “X” in the column that you feel is the best fit for each item (only one “X” per row please)

3.3 Administration condition

In order to randomize the administration of conditions, we asked respondents to indicate their birth month:

- January → March: LINK ONE
- April → June: LINK TWO
- July → September: LINK THREE
- October → December: LINK FOUR

The substantive scale definitions provided for ratings were:

- *Absorption*: Being fully immersed in one’s work, where time passes quickly and one has difficulty detaching from work tasks
- *Vigor*: Experiencing persistent levels of energy, effort, and enthusiasm while working
- *Dedication*: Experiencing pride and challenge in ones work, as well as strong feelings of support from and loyalty toward the organization

The attitudinal scale definitions were:

- *Cognitive*: Pertaining to thoughts or general mental processes (for example what someone thinks)
- *Affective*: Pertaining to feelings or emotions (for example, how someone feels)
- *Behavioral*: Pertaining to acts or actions (for example, what someone does)

The goal was to identify item(s) that were equally and heavily implicated with one substantive and one attitudinal scale.

Initial rating convergence for Absorption:

```
##      Cognitive
## Absorption 1 2 4 5 6 7
##           1 2 1 0 1 0 0
##           2 0 0 0 0 0 0
##           4 1 1 0 0 0 0
##           5 0 1 0 0 0 0
##           6 0 0 0 0 0 0
##           7 0 2 0 0 0 0

##      Affective
## Absorption 1 2 3 4 5 6 7
##           1 0 1 0 0 1 1 0
##           2 0 0 0 0 0 0 0
##           4 0 0 0 0 1 0 0
##           5 0 0 0 0 0 0 0
##           6 0 0 0 0 0 0 0
##           7 0 2 0 0 0 0 0

##      Behavioral
## Absorption 1 2 3 5 6 7
##           1 1 0 0 1 0 0
##           2 0 0 0 0 0 1
##           4 0 0 0 0 2 0
##           5 0 0 0 1 1 0
##           6 0 0 0 0 0 1
##           7 0 0 2 0 0 1
```

Initial rating convergence for Vigor:

```
##      Cognitive
## Vigor 1 2 4 5 6 7
##           1 0 0 1 0 0 1
##           2 1 1 0 0 0 0
##           3 0 1 0 1 0 0
##           5 0 0 0 0 0 0
##           6 2 1 0 0 0 0
##           7 2 0 0 0 0 0

##      Affective
## Vigor 1 2 3 4 5 6 7
```

```

##      1 0 0 1 0 0 0 0
##      2 0 0 0 0 0 0 0
##      3 0 1 0 0 1 0 0
##      5 0 0 0 0 0 1 0
##      6 0 0 0 0 1 1 1
##      7 0 0 0 1 0 3 1

##      Behavioral
## Vigor 1 2 3 5 6 7
##      1 0 0 0 0 1 1
##      2 0 0 0 1 1 0
##      3 0 0 0 0 1 0
##      5 1 0 0 0 0 1
##      6 1 0 0 1 0 0
##      7 2 1 0 0 0 1

```

Initial rating convergence for Dedication:

```

##      Cognitive
## Dedication 1 2 4 5 6 7
##      1 1 0 0 0 0 0
##      2 0 0 0 0 0 0
##      3 0 0 0 1 0 0
##      6 0 0 1 0 0 1
##      7 0 2 0 4 1 1

##      Affective
## Dedication 1 2 3 4 5 6 7
##      1 0 0 0 0 0 0 1
##      2 0 0 0 0 0 1 0
##      3 0 1 0 0 0 0 0
##      6 0 0 1 0 0 0 0
##      7 1 3 0 0 1 0 1

##      Behavioral
## Dedication 1 2 3 5 6 7
##      1 0 0 0 0 2 0
##      2 1 0 0 0 0 0
##      3 0 0 0 0 0 0
##      6 0 0 0 0 0 0
##      7 1 2 0 2 0 0

```

Chapter 4

Results



4.1 Pilot

The pilot administrations consisted of 36 items that were presented in one of four administration groupings (see Appendix B): 1) within substantive dimension (attitudinally grouped [but randomized within blocks of 4]), 2) within attitudinal dimension (substantively grouped [but randomized within blocks of

4]), 3) within substantive dimension (randomly distributed by attitude), and 4) within attitudinal dimension (randomly presented by substance).¹

The four “experimental” conditions therefore prioritized and reflected the 3x3 groupings *or* one of the organization schemes (cognitive, affective, and behavioral *or* dedication, absorption, and vigor).

We chose to control the order of item administration because of our *a priori* specification of a bi-factor structure, with the expectation that item ordering would serve as a response cue, yeilding stronger factor structural support based on the organization scheme.

4.1.1 Sampling strategy (pilot)

Snowball sampling to reduce final instrument from 36 candidate items (4 per “cell”).

Sampling plan (aim for 250 total responses):

- Eagle I.O members reach out via e-mail - draft e-mail that asks to forward along.
- facebook post (MSU I.O)
- LinkedIn (put on next agenda)
- first-year students (Paulina posts in group-chat)
 - mentors also mention to mentees
 - contact lists from Catrina

4.2 Demographic Information

These are to be included in future administrations in an attempt to develop marketable norms:

- employees who work overtime vs. those who do not
- employees who get paid for overtime vs. those who don't receive compensation for extra hours worked²

¹Decision was made on 10/13 to have the order of presentation *randomized* within each of the broader organization blocks (for example, Condition 3: all Affective, Cognitive, and Behavioral Absorption items were randomly administered, then all ABC Dedication items, etc [although DAC was also randomized by block such that not every respondent had the same DAC ordering])

²I was thinking about this because at my job I have been working 12+ hours some days yet I do not get overtime pay. Not sure if this would work for what we are doing and I know my work experiences are not universal (nor should they be) haha!

4.3 Construct and Criterion-related Validation

Use Gallup for construct validation [Thackray]. Also the Utrecht Work Engagement Scale [UWES; Schaufeli et al., Schaufeli and Bakker, a]

Chapter 5

Future plans



Development of the feedback report will occur in stages:

1. Static .pdf
2. Dynamic dashboard
3. Optimize interpretation (invite contributions of cognitive psychologists and/or graphic designers)

5.1 Things to do

- Finalize items
- Get survey into Qualtrics for pilot testing

- Work on feedback report

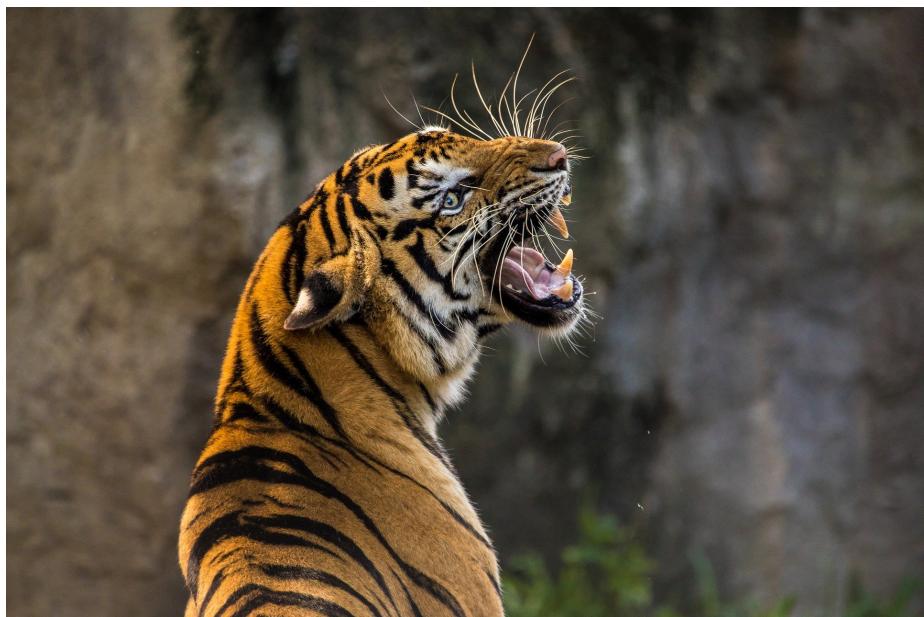
Chapter 6

Author bios



Casey Osorio-Duffoo

Renata Garcia Prieto Palacios Roji received her BA in Psychology and minor in Philosophy from the University of Texas in 2017. Her I/O interests include Data analysis, Learning and Development, and Executive coaching.



John Kulas

Chapter 7

References

Eagly and Chaiken [1993] Simpson [; Harter et al.; Kahn; Leiter and Maslach; R Core Team, 2020; Allaire et al., 2020; Rothbard; Saks; Schaufeli et al.; Simpson]

Appendix A

Timeline of events

Here is Eagle IO's initial definition of engagement (Spring 2019):

A state of personal immersion in work characterized by enthusiasm, dedication, and personal investment, expressed cognitively, affectively, and behaviorally in the proactive pursuit of advancing organizational goals.

This definition was created by Eagle IO Spring 2019, and modified by Dr. Kulas and Renata Fall 2019 to include the four dimensions of Fulfillment, Absorbtion, Dedication, and Vigor.

A.1 Feb 20.2020 (Considering removing fulfillment)

Fulfillment: finding meaning in one's work, while having a sense of autonomy, growth, usefulness, achievement, and feeling appreciated by org. [Satisfaction(?)]

Decided to operationalize fullfillment as an *outcome* of engagement rather than a definitional element

A.2 Definitional amendments as of 02.24.2020

Absorption: being fully concentrated and happily immersed in ones work (time passes quickly and has difficulty detaching from ones work; Schaufeli et al., 2002)

Dedication/Commitment: being strongly involved in one's work and experiencing a sense of enthusiasm, inspiration, pride, and challenge. (Schaufeli et al., 2002) Identifying as an organizational member/ambassador

include identification with the organization, a sense of “oneness” seeking continuous learning and improvement getting rid of challenge altogether moving inspiration and pride to other categories

dedication: seeking continuous improvement and demonstrating initiative

Vigor: investing consistent effort, persistence, energy, and mental resilience while working (Schaufeli et al., 2002) maybe add enthusiasm here as well

Vigor: Experiencing persistent levels of energy and enthusiasm while working

potential to change from affective, cognitive, and behavioral to whether their engagement comes from content/satisfaction with the organization or the people they work with.

After completing individual Q-sorts (Kulas and Renata) we decided to revisit the definitions and build them up a little to make the difference between them more noticeable.

A.3 Definitions as of 5/19/2020

Absorption: Being fully immersed in one's work, where time passes quickly and one has difficulty detaching from work tasks

Vigor: Experiencing persistent levels of energy, effort, and enthusiasm while working

Dedication: Experiencing pride and challenge in one's work, as well as strong feelings of support from and loyalty toward the organization

With these definitions we ordered all the items according to the ones we individually selected for each category and created an item bank with the remaining items. Together we placed the items in the bank into the agreed upon categories.

Appendix B

Pilot conditions

Our four orderings of items were randomized within dimension (Affective, Behavioral, Cognitive or Dedication, Absorption, Vigor), “block” (Qualtrics designation for groupings of items), and item. The elements that were randomized are identified in the following tables by randomized element (A, B, C, or D):

Pilot administration ordering Condition 1

Condition1

Substantive

Attitudinal

Dimension

Block

Item

I'm able to concentrate on my work without distractions

Absorption

Cognitive

A

A

A

I have a hard time detaching mentally from my work

Absorption

Cognitive

A

A

B

Time passes quickly while I'm working

Absorption

Cognitive

A

A

C

I find it difficult to mentally disconnect from work

Absorption

Cognitive

A

A

D

I enjoy thinking about work even when I'm not at work

Absorption

Affective

A

B

A

Most days, I feel happiest when the workday is soon to be complete (r)

Absorption

Affective

A

B

B

I am happiest when I am immersed in a project

Absorption

Affective

A

B

C

I love starting my workday.

Absorption

Affective

A

B

D

I devote more time than is expected of me.

Absorption

Behavioral

A

C

A

I have to be reminded to take breaks while I'm at work

Absorption

Behavioral

A

C

B

I never miss a work deadline.

Absorption

Behavioral

A

C

C

I never allow distractions to interfere with my work

Absorption

Behavioral

A

C

D

I devote my full attention to my work tasks throughout the day

Vigor

Cognitive

B

A

A

Thinking about work saps my energy (r)

Vigor

Cognitive

B

A

B

I would rather direct my focus toward a work task than a personal task

Vigor

Cognitive

B

A

C

I'm able to maintain good levels of energy throughout the workday

Vigor

Cognitive

B

A

D

I enjoy spending time completing my job tasks.

Vigor

Affective

B

B

A

Most days I feel enthusiastic about starting my work day.

Vigor

Affective

B

B

B

I feel motivated to go beyond what is asked of me

Vigor

Affective

B

B

C

This job drains my energy (r)

Vigor

Affective

B

B

D

When work is slow I find ways to be productive.

Vigor

Behavioral

B

C

A

I express enthusiasm for my job while at work

Vigor

Behavioral

B

C

B

I try my best to perform well at work

Vigor

Behavioral

B

C

C

If I notice my energy level is low, I take corrective steps to re-energize.

Vigor

Behavioral

B

C

D

I plan my future with this company.

Dedication

Cognitive

C

A

A

I believe this company cares about my career goals

Dedication

Cognitive

C

A

B

I often think about finding another job (r)

Dedication

Cognitive

C

A

C

This organization challenges me to work at my full potential

Dedication

Cognitive

C

A

D

I am proud to be a member of this organization.

Dedication

Affective

C

B

A

I feel supported by my supervisor when I fail at a task

Dedication

Affective

C

B

B

I feel proud of my accomplishments within this organization

Dedication

Affective

C

B

C

My job makes me feel like I'm part of something meaningful

Dedication

Affective

C

B

D

I make valued contributions to the organization

Dedication

Behavioral

C

C

A

I embrace challenging situations at work.

Dedication

Behavioral

C

C

B

I speak positively about this organization to others.

Dedication

Behavioral

C

C

C

This organization provides the resources necessary for me to successfully perform my job

Dedication

Behavioral

C

C

D

Pilot administration ordering Condition 2

Condition2

Substantive

Attitudinal

Dimension

Block

Item

I'm able to concentrate on my work without distractions

Absorption

Cognitive

A

A

A

I have a hard time detaching mentally from my work

Absorption

Cognitive

A

A

B

Time passes quickly while I'm working

Absorption

Cognitive

A

A

C

I find it difficult to mentally disconnect from work

Absorption

Cognitive

A

A

D

I devote my full attention to my work tasks throughout the day

Vigor

Cognitive

A

B

A

Thinking about work saps my energy (r)

Vigor

Cognitive

A

B

B

I would rather direct my focus toward a work task than a personal task

Vigor

Cognitive

A

B

C

I'm able to maintain good levels of energy throughout the workday

Vigor

Cognitive

A

B

D

I plan my future with this company.

Dedication

Cognitive

A

C

A

I believe this company cares about my career goals

Dedication

Cognitive

A

C

B

I often think about finding another job (r)

Dedication

Cognitive

A

C

C

This organization challenges me to work at my full potential

Dedication

Cognitive

A

C

D

I enjoy thinking about work even when I'm not at work

Absorption

Affective

B

A

A

Most days, I feel happiest when the workday is soon to be complete (r)

Absorption

Affective

B

A

B

I am happiest when I am immersed in a project

Absorption

Affective

B

A

C

I love starting my workday.

Absorption

Affective

B

A

D

I enjoy spending time completing my job tasks.

Vigor

Affective

B

B

A

Most days I feel enthusiastic about starting my work day.

Vigor

Affective

B

B

B

I feel motivated to go beyond what is asked of me

Vigor

Affective

B

B

C

This job drains my energy (r)

Vigor

Affective

B

B

D

I am proud to be a member of this organization.

Dedication

Affective

B

C

A

I feel supported by my supervisor when I fail at a task

Dedication

Affective

B

C

B

I feel proud of my accomplishments within this organization

Dedication

Affective

B

C

C

My job makes me feel like I'm part of something meaningful

Dedication

Affective

B

C

D

I devote more time than is expected of me.

Absorption

Behavioral

C

A

A

I have to be reminded to take breaks while I'm at work

Absorption

Behavioral

C

A

B

I never miss a work deadline.

Absorption

Behavioral

C

A

C

I never allow distractions to interfere with my work

Absorption

Behavioral

C

A

D

When work is slow I find ways to be productive.

Vigor

Behavioral

C

B

A

I express enthusiasm for my job while at work

Vigor

Behavioral

C

B

B

I try my best to perform well at work

Vigor

Behavioral

C

B

C

If I notice my energy level is low, I take corrective steps to re-energize.

Vigor

Behavioral

C

B

D

I make valued contributions to the organization

Dedication

Behavioral

C

C

A

I embrace challenging situations at work.

Dedication

Behavioral

C

C

B

I speak positively about this organization to others.

Dedication

Behavioral

C

C

C

This organization provides the resources necessary for me to successfully perform my job

Dedication

Behavioral

C

C

D

Pilot administration ordering Condition 3

Condition3

Substantive

Attitudinal

Dimension

Item

I'm able to concentrate on my work without distractions

Absorption

Cognitive

A

A

I enjoy thinking about work even when I'm not at work

Absorption

Affective

A

B

I devote more time than is expected of me.

Absorption

Behavioral

A

C

I have a hard time detaching mentally from my work

Absorption

Cognitive

A

D

Most days, I feel happiest when the workday is soon to be complete (r)

Absorption

Affective

A

E

I have to be reminded to take breaks while I'm at work

Absorption

Behavioral

A

F

Time passes quickly while I'm working

Absorption

Cognitive

A

G

I am happiest when I am immersed in a project

Absorption

Affective

A

H

I never miss a work deadline.

Absorption

Behavioral

A

I

I find it difficult to mentally disconnect from work

Absorption

Cognitive

A

J

I love starting my workday.

Absorption

Affective

A

K

I never allow distractions to interfere with my work

Absorption

Behavioral

A

L

I devote my full attention to my work tasks throughout the day

Vigor

Cognitive

B

A

I enjoy spending time completing my job tasks.

Vigor

Affective

B

B

When work is slow I find ways to be productive.

Vigor

Behavioral

B

C

Thinking about work saps my energy (r)

Vigor

Cognitive

B

D

Most days I feel enthusiastic about starting my work day.

Vigor

Affective

B

E

I express enthusiasm for my job while at work

Vigor

Behavioral

B

F

I would rather direct my focus toward a work task than a personal task

Vigor

Cognitive

B

G

I feel motivated to go beyond what is asked of me

Vigor

Affective

B

H

I try my best to perform well at work

Vigor

Behavioral

B

I

I'm able to maintain good levels of energy throughout the workday

Vigor

Cognitive

B

J

This job drains my energy (r)

Vigor

Affective

B

K

If I notice my energy level is low, I take corrective steps to re-energize.

Vigor

Behavioral

B

L

I plan my future with this company.

Dedication

Cognitive

C

A

I am proud to be a member of this organization.

Dedication

Affective

C

B

I make valued contributions to the organization

Dedication

Behavioral

C

C

I believe this company cares about my career goals

Dedication

Cognitive

C

D

I feel supported by my supervisor when I fail at a task

Dedication

Affective

C

E

I embrace challenging situations at work.

Dedication

Behavioral

C

F

I often think about finding another job (r)

Dedication

Cognitive

C

G

I feel proud of my accomplishments within this organization

Dedication

Affective

C

H

I speak positively about this organization to others.

Dedication

Behavioral

C

I

This organization challenges me to work at my full potential

Dedication

Cognitive

C

J

My job makes me feel like I'm part of something meaningful

Dedication

Affective

C

K

This organization provides the resources necessary for me to successfully perform my job

Dedication

Behavioral

C

L

Pilot administration ordering Condition 4

Condition4

Substantive

Attitudinal

Dimension

Item

I'm able to concentrate on my work without distractions

Absorption

Cognitive

A

A

I devote my full attention to my work tasks throughout the day

Vigor

Cognitive

A

B

I plan my future with this company.

Dedication

Cognitive

A

C

I have a hard time detaching mentally from my work

Absorption

Cognitive

A

D

Thinking about work saps my energy (r)

Vigor

Cognitive

A

E

I believe this company cares about my career goals

Dedication

Cognitive

A

F

Time passes quickly while I'm working

Absorption

Cognitive

A

G

I would rather direct my focus toward a work task than a personal task

Vigor

Cognitive

A

H

I often think about finding another job (r)

Dedication

Cognitive

A

I

I find it difficult to mentally disconnect from work

Absorption

Cognitive

A

J

I'm able to maintain good levels of energy throughout the workday

Vigor

Cognitive

A

K

This organization challenges me to work at my full potential

Dedication

Cognitive

A

L

I enjoy thinking about work even when I'm not at work

Absorption

Affective

B

A

I enjoy spending time completing my job tasks.

Vigor

Affective

B

B

I am proud to be a member of this organization.

Dedication

Affective

B

C

Most days, I feel happiest when the workday is soon to be complete (r)

Absorption

Affective

B

D

Most days I feel enthusiastic about starting my work day.

Vigor

Affective

B

E

I feel supported by my supervisor when I fail at a task

Dedication

Affective

B

F

I am happiest when I am immersed in a project

Absorption

Affective

B

G

I feel motivated to go beyond what is asked of me

Vigor

Affective

B

H

I feel proud of my accomplishments within this organization

Dedication

Affective

B

I

I love starting my workday.

Absorption

Affective

B

J

This job drains my energy (r)

Vigor

Affective

B

K

My job makes me feel like I'm part of something meaningful

Dedication

Affective

B

L

I devote more time than is expected of me.

Absorption

Behavioral

C

A

When work is slow I find ways to be productive.

Vigor

Behavioral

C

B

I make valued contributions to the organization

Dedication

Behavioral

C

C

I have to be reminded to take breaks while I'm at work

Absorption

Behavioral

C

D

I express enthusiasm for my job while at work

Vigor

Behavioral

C

E

I embrace challenging situations at work.

Dedication

Behavioral

C

F

I never miss a work deadline.

Absorption

Behavioral

C

G

I try my best to perform well at work

Vigor

Behavioral

C

H

I speak positively about this organization to others.

Dedication

Behavioral

C

I

I never allow distractions to interfere with my work

Absorption

Behavioral

C

J

If I notice my energy level is low, I take corrective steps to re-energize.

Vigor

Behavioral

C

K

This organization provides the resources necessary for me to successfully perform my job

Dedication

Behavioral

C

L

Appendix C

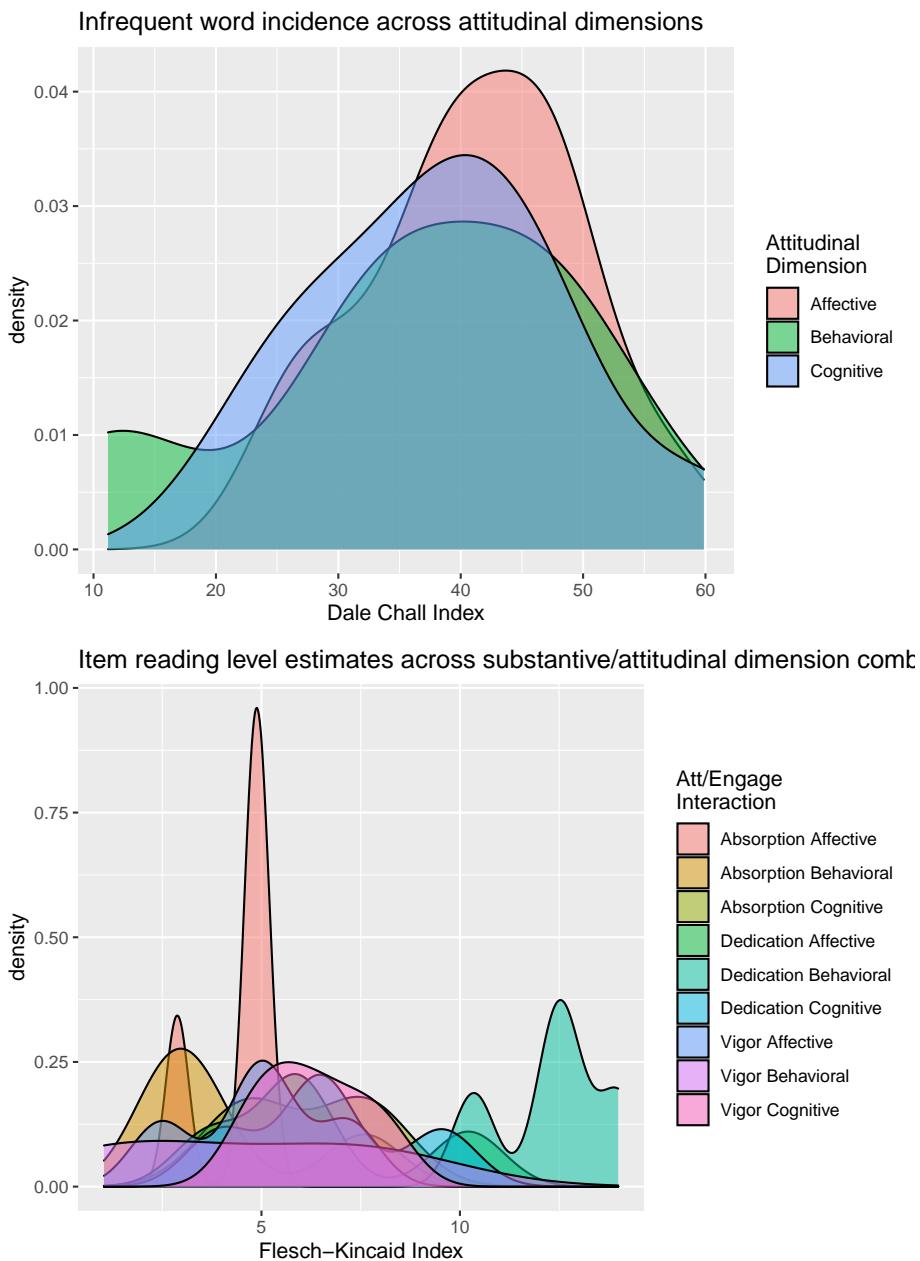
Qualitative item characteristics

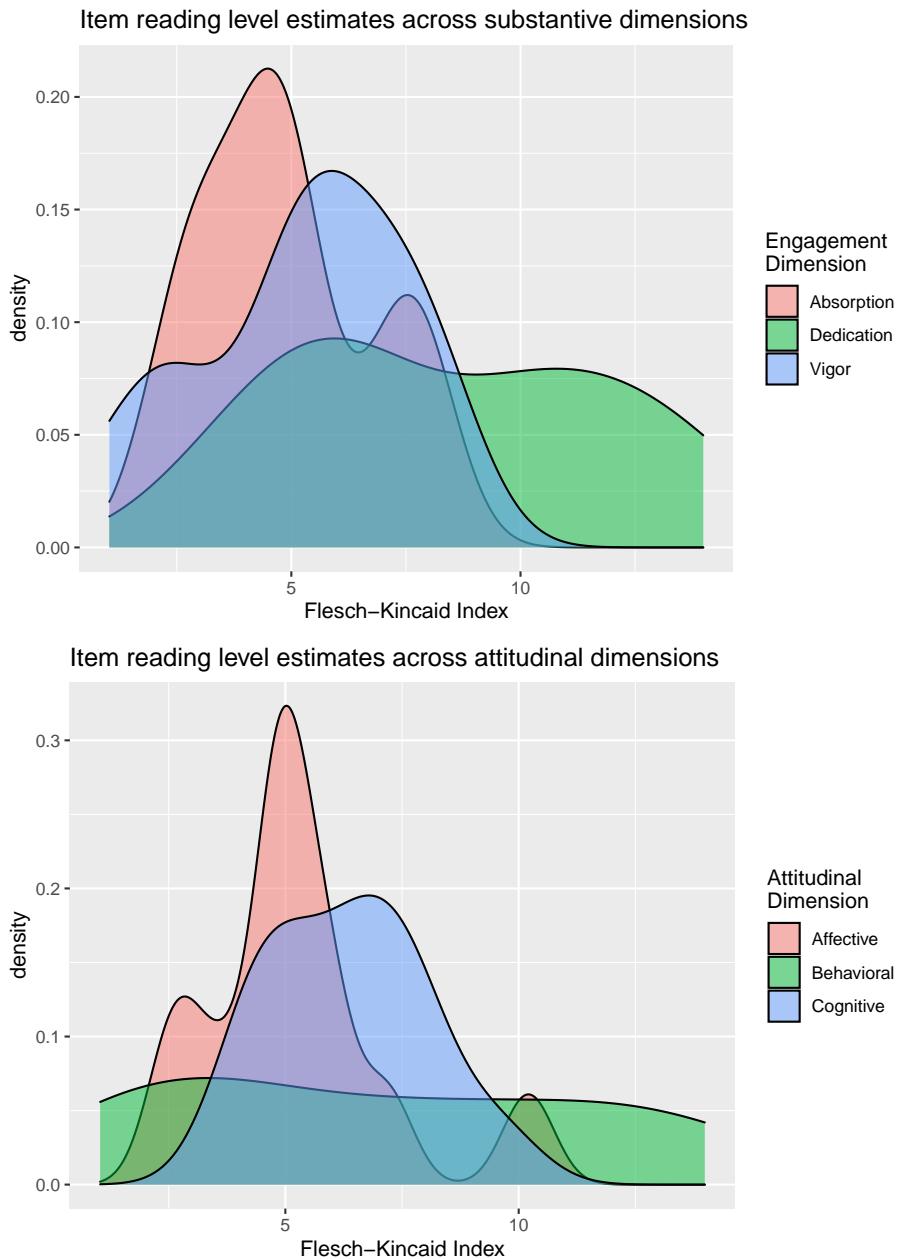
Quentada reading ability of final items as well as overlapping histograms by scale. Using package `quanteda` in R version 4.0.2 (2020-06-22). The Flesch-Kincaid is the same grade level index that's currently used by Microsoft Word [Kincaid et al.]. “Dale.Chall” reflects N_{wd} [“difficulty” of words; Chall and Dale]. N_{wf} = the number of words matching the Dale-Chall List of 3000 “familiar words”. N_{wd} = number of “difficult” words not matching the Dale-Chall list of “familiar” words.

The average Flesch-Kincaid (e.g., reading grade) was 6.2 ($sd = 3.04$). The average Dale-Chall index was 38.61 ($sd = 11.11$).

C.1 Frequency distributions by dimension







C.2 Tables of qualitative indices

Organized by Flesch-Kincaid aka Reading Level

document

Substantive

Attitudinal

Flesch.Kincaid

Dale.Chall

36

This organization provides the resources necessary for me to successfully perform my job

Dedication

Behavioral

13.99

11.18

35

I speak positively about this organization to others.

Dedication

Behavioral

12.61

34.73

33

I make valued contributions to the organization

Dedication

Behavioral

12.43

32.03

34

I embrace challenging situations at work.

Dedication

Behavioral

10.35

12.36

31

I feel proud of my accomplishments within this organization

Dedication

Affective

10.21

26.12

28

This organization challenges me to work at my full potential

Dedication

Cognitive

9.55

28.60

24

If I notice my energy level is low, I take corrective steps to re-energize.

Vigor

Behavioral

8.35

28.32

16

I'm able to maintain good levels of energy throughout the workday

Vigor

Cognitive

8.01

21.86

1

I'm able to concentrate on my work without distractions

Absorption

Cognitive

7.59

36.68

4

I find it difficult to mentally disconnect from work

Absorption	
Cognitive	
7.59	
26.12	
12	
I never allow distractions to interfere with my work	
Absorption	
Behavioral	
7.59	
36.68	
18	
Most days I feel enthusiastic about starting my work day.	
Vigor	
Affective	
7.19	
47.60	
15	
I would rather direct my focus toward a work task than a personal task	
Vigor	
Cognitive	
6.73	
40.77	
27	
I often think about finding another job (r)	
Dedication	
Cognitive	
6.71	
46.61	
22	
I express enthusiasm for my job while at work	
Vigor	

Behavioral

6.28

36.68

26

I believe this company cares about my career goals

Dedication

Cognitive

6.28

47.23

29

I am proud to be a member of this organization.

Dedication

Affective

6.01

47.60

30

I feel supported by my supervisor when I fail at a task

Dedication

Affective

5.81

39.89

14

Thinking about work saps my energy (r)

Vigor

Cognitive

5.68

32.03

17

I enjoy spending time completing my job tasks.

Vigor

Affective

5.23

46.61

6

Most days, I feel happiest when the workday is soon to be complete (r)

Absorption

Affective

5.04

33.98

2

I have a hard time detaching mentally from my work

Absorption

Cognitive

4.83

38.10

7

I am happiest when I am immersed in a project

Absorption

Affective

4.83

38.10

13

I devote my full attention to my work tasks throughout the day

Vigor

Cognitive

4.82

39.89

5

I enjoy thinking about work even when I'm not at work

Absorption

Affective

4.79

56.41

19

I feel motivated to go beyond what is asked of me

Vigor

Affective

4.79

39.14

3

Time passes quickly while I'm working

Absorption

Cognitive

4.45

59.86

25

I plan my future with this company.

Dedication

Cognitive

4.00

45.60

32

My job makes me feel like I'm part of something meaningful

Dedication

Affective

3.72

47.77

9

I devote more time than is expected of me.

Absorption

Behavioral

3.65

47.23

8

I love starting my workday.

Absorption

Affective

2.88

41.55

10

I have to be reminded to take breaks while I'm at work

Absorption

Behavioral

2.86

55.72

11

I never miss a work deadline.

Absorption

Behavioral

2.48

44.03

20

This job drains my energy (r)

Vigor

Affective

2.48

28.19

21

When work is slow I find ways to be productive.

Vigor

Behavioral

2.47

47.60

23

I try my best to perform well at work

Vigor

Behavioral

1.03

47.23

Organized by Dale Chall aka includes Difficult Words
document

Substantive

Attitudinal

Flesch.Kincaid

Dale.Chall

36

This organization provides the resources necessary for me to successfully perform
my job

Dedication

Behavioral

13.99

11.18

34

I embrace challenging situations at work.

Dedication

Behavioral

10.35

12.36

16

I'm able to maintain good levels of energy throughout the workday

Vigor

Cognitive

8.01

21.86

4

I find it difficult to mentally disconnect from work	
Absorption	
Cognitive	
7.59	
26.12	
31	
I feel proud of my accomplishments within this organization	
Dedication	
Affective	
10.21	
26.12	
20	
This job drains my energy (r)	
Vigor	
Affective	
2.48	
28.19	
24	
If I notice my energy level is low, I take corrective steps to re-energize.	
Vigor	
Behavioral	
8.35	
28.32	
28	
This organization challenges me to work at my full potential	
Dedication	
Cognitive	
9.55	
28.60	
14	
Thinking about work saps my energy (r)	

Vigor

Cognitive

5.68

32.03

33

I make valued contributions to the organization

Dedication

Behavioral

12.43

32.03

6

Most days, I feel happiest when the workday is soon to be complete (r)

Absorption

Affective

5.04

33.98

35

I speak positively about this organization to others.

Dedication

Behavioral

12.61

34.73

1

I'm able to concentrate on my work without distractions

Absorption

Cognitive

7.59

36.68

12

I never allow distractions to interfere with my work

Absorption

Behavioral
7.59
36.68
22
I express enthusiasm for my job while at work
Vigor
Behavioral
6.28
36.68
2
I have a hard time detaching mentally from my work
Absorption
Cognitive
4.83
38.10
7
I am happiest when I am immersed in a project
Absorption
Affective
4.83
38.10
19
I feel motivated to go beyond what is asked of me
Vigor
Affective
4.79
39.14
13
I devote my full attention to my work tasks throughout the day
Vigor
Cognitive

4.82

39.89

30

I feel supported by my supervisor when I fail at a task

Dedication

Affective

5.81

39.89

15

I would rather direct my focus toward a work task than a personal task

Vigor

Cognitive

6.73

40.77

8

I love starting my workday.

Absorption

Affective

2.88

41.55

11

I never miss a work deadline.

Absorption

Behavioral

2.48

44.03

25

I plan my future with this company.

Dedication

Cognitive

4.00

45.60	
17	I enjoy spending time completing my job tasks.
Vigor	
Affective	
5.23	
46.61	
27	I often think about finding another job (r)
Dedication	
Cognitive	
6.71	
46.61	
9	I devote more time than is expected of me.
Absorption	
Behavioral	
3.65	
47.23	
23	I try my best to perform well at work
Vigor	
Behavioral	
1.03	
47.23	
26	I believe this company cares about my career goals
Dedication	
Cognitive	
6.28	
47.23	

18

Most days I feel enthusiastic about starting my work day.

Vigor

Affective

7.19

47.60

21

When work is slow I find ways to be productive.

Vigor

Behavioral

2.47

47.60

29

I am proud to be a member of this organization.

Dedication

Affective

6.01

47.60

32

My job makes me feel like I'm part of something meaningful

Dedication

Affective

3.72

47.77

10

I have to be reminded to take breaks while I'm at work

Absorption

Behavioral

2.86

55.72

5

I enjoy thinking about work even when I'm not at work

Absorption

Affective

4.79

56.41

3

Time passes quickly while I'm working

Absorption

Cognitive

4.45

59.86

Bibliography

- JJ Allaire, Yihui Xie, Jonathan McPherson, Javier Luraschi, Kevin Ushey, Aron Atkins, Hadley Wickham, Joe Cheng, Winston Chang, and Richard Iannone. *rmarkdown: Dynamic Documents for R*, 2020. URL <https://CRAN.R-project.org/package=rmarkdown>. R package version 2.3.
- Arnold B. Bakker and Evangelia Demerouti. Job demands–resources theory: taking stock and looking forward. 22(3):273. Publisher: Educational Publishing Foundation.
- J. S. Chall and E. Dale. *Readability revisited: The new Dale–Chall readability formula*. Cambridge, MA: Brookline Books.
- Alice H. Eagly and Shelly Chaiken. *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers, 1993.
- James K. Harter, Frank L. Schmidt, and Theodore L. Hayes. Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis. 87(2):268.
- William A. Kahn. Psychological conditions of personal engagement and disengagement at work. 33(4):692–724.
- J. Peter Kincaid, Robert P. Fishburne Jr, Richard L. Rogers, and Brad S. Chissom. Derivation of new readability formulas (automated readability index, fog count and flesch reading ease formula) for navy enlisted personnel.
- Michael P. Leiter and Christina Maslach. Areas of worklife: A structured approach to organizational predictors of job burnout. 3(1):91–134.
- R Core Team. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria, 2020. URL <https://www.R-project.org/>.
- Nancy P. Rothbard. Enriching or depleting? the dynamics of engagement in work and family roles. 46(4):655–684.
- Alan M. Saks. Antecedents and consequences of employee engagement.

- Wilmar B. Schaufeli and Arnold B. Bakker. Defining and measuring work engagement: Bringing clarity to the concept. 12:10–24, a.
- Wilmar B. Schaufeli and Arnold B. Bakker. Utrecht work engagement scale. 1, b.
- Wilmar B. Schaufeli, Marisa Salanova, Vicente González-Romá, and Arnold B. Bakker. The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. 3(1):71–92.
- Michelle R. Simpson. Engagement at work: A review of the literature. 46(7): 1012–1024.
- John Thackray. *The Gallup Q12*. Gallup Management Journal.