

- \* HSE Management Stands Stress Scale Factors coding syntax.
- \* University of Portsmouth Quality of Working Life Research Group.
- \* Darren Van Laar, Feb 2020.
- \* Please see HSE website for more information: <https://www.hse.gov.uk/stress/standards/downloads.htm>.
- \* Please use at your own risk.

## \*\* 1. LOAD DATA.

\*Assumes data file with HSE questions labelled q01 to q35 are already loaded in to SPSS.

## \*\* 2. SETUP Missing values and Labels.

\*\*Set 0 or 99 or 999 as system missing values.  
missing values q01 to q35 ("0.", "99.", "999.").

variable labels

q01 "q01: I am clear what is expected from me at work"  
q02 "q02: I can decide when to take a break"  
q03 "q03: Different groups at work demand things that are hard to combine (-ve)"  
q04 "q04: I know how to go about getting my job done"  
q05 "q05: I am subject to personal harassment in the form of unkind words or behaviour (-ve)"  
q06 "q06: I have unachievable deadlines (-ve)"  
q07 "q07: If work gets difficult, my colleagues will help me"  
q08 "q08: I am given supportive feedback on the work I do"  
q09 "q09: I have to work very intensively (-ve)"  
q10 "q10: I have a say in my own work speed"  
q11 "q11: I am clear what my duties and responsibilities are"  
q12 "q12: I have to neglect some tasks because I have too much work to do (-ve)"  
q13 "q13: I am clear about the goals and objectives for my department"  
q14 "q14: There is friction or anger between colleagues (-ve)"  
q15 "q15: I have a choice in deciding how I do my work"  
q16 "q16: I am unable to take sufficient breaks (-ve)"  
q17 "q17: I understand how my work fits into the overall aim of the University"  
q18 "q18: I am pressured to work long hours (-ve)"  
q19 "q19: I have a choice in what I do at work"  
q20 "q20: I have to work very fast (-ve)"  
q21 "q21: I am subject to bullying at work (-ve)"  
q22 "q22: I have unrealistic time pressures (-ve)"  
q23 "q23: I can rely on my manager to help me with a work problem"  
q24 "q24: I get help and support I need from my colleagues"  
q25 "q25: I have some say over the way I work"  
q26 "q26: I have sufficient opportunities to question managers about change at work"  
q27 "q27: I receive the respect at work I deserve from my colleagues"  
q28 "q28: Staff are always consulted about change at work"  
q29 "q29: I can talk to my line manager about something that has upset or annoyed me at work"  
q30 "q30: My working time can be flexible"  
q31 "q31: My colleagues are willing to listen to my work-related problems"  
q32 "q32: When changes are made at work, I am clear how they will work out in practice"  
q33 "q33: I am supported through emotionally demanding work"  
q34 "q34: Relationships at work are strained (-ve)"  
q35 "q35: My line manager encourages me at work"

\*\*\*\*\* Value Labels \*\*\*\*\*.

VALUE LABELS q01 to q23

1.0000000000000 "Never"  
2.0000000000000 "Seldom"  
3.0000000000000 "Sometimes"  
4.0000000000000 "Often"  
5.0000000000000 "Always"

.  
\* NB HSE questions 24 to 35 are SA to SD.

VALUE LABELS q24 to q35

1.0000000000000 "Strongly Disagree"  
2.0000000000000 "Disagree"  
3.0000000000000 "Neutral"  
4.0000000000000 "Agree"  
5.0000000000000 "Strongly Agree"

.  
\*\*\*\*\*.

\*\* 3. Descriptives and error checking.

\*Means and Sd.

DESCRIPTIVES

VARIABLES=q01 q02 q03 q04 q05 q06 q07 q08 q09 q10 q11 q12 q13 q14 q15 q16  
q17 q18 q19 q20 q21 q22 q23 q24 q25 q26 q27 q28 q29 q30 q31 q32 q33 q34 q35  
/STATISTICS=MEAN STDDEV .

\*Percentages - use to calculate %Agree or %Freq scores.

\*answers for individual questions [select Tables -> Tables of Frequencies] - first HSE qns.

TABLES

/FORMAT ZERO MISSING('.') /TABLES  
( q01 + q02 + q03 + q04 +q05 +q06 +q07 +q08 +q09 +q10 +q11 +q12 +q13 +q14 +q15 +q16 +q17 + q18 + q19 + q20  
+ q21 + q22  
+ q23+ q24 + q25 + q26 + q27 + q28 + q29 + q30 + q31 + q32 + q33 + q34 + q35 ) BY (LABELS) > (STATISTICS)  
/STATISTICS CPCT ((F7.2) '%') .

\*\* 4. HSE FACTOR SCORES \*\*\*\*\*.

\*\*First make all negative phrased questions explicitly unreversed.

\* this ensures no mistakes or confusions when interpreting reversed scores.

compute q03ur = ( q03).

Execute.

compute q05ur = ( q05).

Execute.

compute q06ur = ( q06).

Execute.

compute q09ur = ( q09).

Execute.

compute q12ur = ( q12).

Execute.

compute q14ur = ( q14).

Execute.

compute q16ur = ( q16).

```
Execute.  
compute q18ur = ( q18).  
Execute.  
compute q20ur = ( q20).  
Execute.  
compute q21ur = ( q21).  
Execute.  
compute q22ur = ( q22).  
Execute.  
compute q34ur = ( q34).  
Execute.
```

variable labels

```
q03ur "q03ur: Different groups at work demand things that are hard to combine (rev)"  
q05ur "q05ur: I am subject to personal harassment in the form of unkind words or behaviour (rev)"  
q06ur "q06ur: I have unachievable deadlines (rev)"  
q09ur "q09ur: I have to work very intensively (rev)"  
q12ur "q12ur: I have to neglect some tasks because I have too much work to do (rev)"  
q14ur "q14ur: There is friction or anger between colleagues (rev)"  
q16ur "q16ur: I am unable to take sufficient breaks (rev)"  
q18ur "q18ur: I am pressured to work long hours (rev)"  
q20ur "q20ur: I have to work very fast (rev)"  
q21ur "q21ur: I am subject to bullying at work (rev)"  
q22ur "q22ur: I have unrealistic time pressures (rev)"  
q34ur "q34ur: Relationships at work are strained (rev)"  
.
```

\*\* next reverse all negative phrased qns so that higher values = better wellbeing.

```
compute q03rev = (6 - q03).  
Execute.  
compute q05rev = (6 - q05).  
Execute.  
compute q06rev = (6 - q06).  
Execute.  
compute q09rev = (6 - q09).  
Execute.  
compute q12rev = (6 - q12).  
Execute.  
compute q14rev = (6 - q14).  
Execute.  
compute q16rev = (6 - q16).  
Execute.  
compute q18rev = (6 - q18).  
Execute.  
compute q20rev = (6 - q20).  
Execute.  
compute q21rev = (6 - q21).  
Execute.  
compute q22rev = (6 - q22).  
Execute.  
compute q34rev = (6 - q34).  
Execute.
```

variable labels

q03rev "q03rev: Different groups at work demand things that are hard to combine (-ve)"  
q05rev "q05rev: I am subject to personal harassment in the form of unkind words or behaviour (-ve)"  
q06rev "q06rev: I have unachievable deadlines (-ve)"  
q09rev "q09rev: I have to work very intensively (-ve)"  
q12rev "q12rev: I have to neglect some tasks because I have too much work to do (-ve)"  
q14rev "q14rev: There is friction or anger between colleagues (-ve)"  
q16rev "q16rev: I am unable to take sufficient breaks (-ve)"  
q18rev "q18rev: I am pressured to work long hours (-ve)"  
q20rev "q20rev: I have to work very fast (-ve)"  
q21rev "q21rev: I am subject to bullying at work (-ve)"  
q22rev "q22rev: I have unrealistic time pressures (-ve)"  
q34rev "q34rev: Relationships at work are strained (-ve)"  
.

\*\* Next calculate Factor scores.

COMPUTE DMD = mean(q03ur,q06ur, q09ur, q12ur, q16ur, q18ur,q20ur,q22ur) .

EXECUTE .

COMPUTE CON = mean(q02,q10, q15, q19, q25, q30) .

EXECUTE .

COMPUTE MSP = mean(q08,q23, q29,q33,q35) .

EXECUTE .

COMPUTE PSP = mean(q07,q24,q27,q31) .

EXECUTE .

COMPUTE ROL = mean(q01,q04, q11,q13,q17) .

EXECUTE .

COMPUTE REL = mean(q05ur,q14ur, q21ur,q34ur) .

EXECUTE .

COMPUTE CHN = mean(q26,q28, q32) .

EXECUTE .

\*DMDR = reversed Demands such that higher values indicate less stress.

COMPUTE DMDR = mean(q03rev,q06rev, q09rev, q12rev, q16rev, q18rev,q20rev,q22rev) .

EXECUTE .

\*RELRL = reversed Relationships such that higher values indicate less stress.

COMPUTE RELRL = mean(q05rev,q14rev, q21rev,q34rev) .

EXECUTE .

\*\* Calculate summary factor scores.

\* by all questions, including reversed.

\* NOTE Reversed questions used which means higher HSER scores means less stress and greater wellbeing.

Compute HSER = mean(q01, q02, q03rev, q04, q05rev, q06rev, q07, q08, q09rev, q10, q11, q12rev, q13, q14rev, q15, q16rev, q17, q18rev, q19, q20rev, q21rev, q22rev, q23, q24, q25, q26, q27, q28, q29, q30, q31, q32, q33, q34rev, q35).

execute.

\* by average of factor scores, including reversed.

\* NOTE Reversed factors which means higher HSERFAC scores means less stress and greater wellbeing.

compute HSERFAC = mean(DMDR, CON, MSP, PSP, ROL, RELRL, CHN).

execute.

\*\*\*factor labels redone to be easy to read.

VARIABLE LABELS

ROL "Role (ROL)"

PSP "Peer Support (PSP)"

DMD "Demand (DMD)"

CON "Control (CON)"

MSP "Management Support (MSP)"

REL "Relationships (REL)"

CHN "Change (CHN)"

DMDR "Demand (Rev.) (DMD-R)"

RELR "Relationships (Rev.) (REL-R)".

VARIABLE LABELS

HSER "Overall HSE"

HSERFAC "Overall HSE Factor AVG"

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## \*\* 5. Advanced Analysis

\*\*Reliability Analysis\*.

\*\* In general terms, Cronbach Alpha values of 0.7 and above are OK, 0.8 and above are good, 0.9 and above are excellent.

\*\*\*DMD - Unreversed.

RELIABILITY

/VARIABLES=q03ur q06ur q09ur q12ur q16ur q18ur q20ur q22ur

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

\*\*\*CON.

RELIABILITY

/VARIABLES=q02 q10 q15 q19 q25 q30

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

\*\*\*MSP.

RELIABILITY

/VARIABLES=q08 q23 q29 q33 q35

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

\*\*\*PSP.

RELIABILITY

/VARIABLES=q07 q24 q27 q31

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

\*\*\*ROL.

RELIABILITY

/VARIABLES=q01 q04 q11 q13 q17

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

\*\*\* REL - unreversed.

RELIABILITY

/VARIABLES=q05ur q14ur q21ur q34ur

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

\*\*\*CHN.

RELIABILITY

/VARIABLES=q26 q28 q32

/SCALE('ALL VARIABLES') ALL

/MODEL=ALPHA

/STATISTICS=DESCRIPTIVE SCALE

/SUMMARY=TOTAL.

\*\*end HSE Stress scale scoring syntax.

\*\*UoP QoWL 2020.