

Scoring the Teachers' Attitudes Toward Information Technology (TAT v1.0) Questionnaire

Introduction

'The Teachers' Attitudes Toward Information Technology Questionnaire (TAT v.1.0) gathers data on eight separate indices from respondents. These eight subscales were newly constructed using semantic differential items taken from Zaichkowsky's (1985) Modified Personal Involvement Inventory, a context free 16-item semantic differential scale that focuses on "a person's perceived relevance of the object based on inherent needs, values, and interests" (p. 342). The TAT (v1.0) is intended to be used in conjunction with the Teachers' Attitudes Toward Computers (TACv2.22) Questionnaire (Christensen and Knezek, 1996, 1997). The following sections describe how to score each subscale.'

Zaichkowsky's (1985) Modified Personal Involvement Inventors

'Semantic items are typically hand coded with a number from 1-7, representing the particular space the respondent marked between the adjective pairs, then keypunched by data entry staff. An example semantic differential scale is listed in Figure 1.

To me, Electronic Mail is:

1. important	___	___	___	___	___	___	___	unimportant
2. boring	___	___	___	___	___	___	___	interesting
3. relevant	___	___	___	___	___	___	___	irrelevant
4. exciting	___	___	___	___	___	___	___	unexciting
5. means nothings	___	___	___	___	___	___	___	means a lot
6. appealing	___	___	___	___	___	___	___	unappealing
7. fascinating	___	___	___	___	___	___	___	mundane
8. worthless	___	___	___	___	___	___	___	valuable
9. involving	___	___	___	___	___	___	___	uninvolving
10. not needed	___	___	___	___	___	___	___	needed

Figure 1. Sample Semantic Differential subscale from the TAT Questionnaire

The TAT (v1.0) based on Zaichkowsky includes semantic perception subscales on the following target items:

1. E-mail for me
2. E-mail for my students
3. WWW for me
4. WWW for my students
5. Multimedia for me

6. Multimedia for my students
7. Computers for Professional Productivity
8. Computers in the Classroom

Step-by Step Scoring Procedures:

1. Reverse the items negatively worded within each scale

Four items in each Zaichkowsky subscale have the "negative" adjective in the left-hand or first position, while the other six have the "positive" adjective in the first position. This "alternate" design ensures that respondents do not simply place X in all the right-hand blanks for an object they don't like.

To ensure that this alternate positioning does not skew scores, the scoring process must include reversal of items negatively worded.

For ease in reading, we want to make sure that responses toward "positive" adjectives show high values, and that responses toward "negative" adjectives show low values.

The Zaichkowsky's scale reverses the following items: 1, 3, 4, 6, 7, 9 in each of the eight subscales.

Please note: Each of the eight subscales consists of items numbered from 1 to 10. However, the variable numbers (to be used with statistical packages, like SPSS) which are listed on the far right-hand side of the page, begin with 1 and continue to 80.

SPSS command example:

```
compute varx = 8 - varx.
```

(where x is the variable that represents the item in the scale and where 8 is used for any 7-position Zaichkowsky's scale)

SPSS command application:

```
compute var1 = 8 - var1.
```

```
compute var3 = 8 - var3.
```

```
compute var4 = 8 - var4.
```

```
compute var6 = 8 - var6.
```

```
compute var7 = 8 - var7.
```

```
compute var9 = 8 - var9.
```

```
compute var11 = 8 - var11.
```

```
compute var13 = 8 - var13.
```

```
compute var14 = 8 - var14.
```

```
compute var16 = 8 - var16.
```

```
compute var17 = 8 - var17.
```

```
compute var19 = 8 - var19.
```

```
compute var21 = 8 - var21.
```

```
compute var23 = 8 - var23.
```

```
compute var24 = 8 - var24.  
compute var26 = 8 - var26.  
compute var27 = 8 - var27.  
compute var29 = 8 - var29.  
compute var31 = 8 - var31.  
compute var33 = 8 - var33.  
compute var34 = 8 - var34.  
compute var36 = 8 - var36.  
compute var37 = 8 - var37.  
compute var39 = 8 - var39.  
compute var41 = 8 - var41.  
compute var43 = 8 - var43.  
compute var44 = 8 - var44.  
compute var46 = 8 - var46.  
compute var47 = 8 - var47.  
compute var49 = 8 - var49.  
compute var51 = 8 - var51.  
compute var53 = 8 - var53.  
compute var54 = 8 - var54.  
compute var56 = 8 - var56.  
compute var57 = 8 - var57.  
compute var59 = 8 - var59.  
compute var61 = 8 - var61.  
compute var63 = 8 - var63.  
compute var64 = 8 - var64.  
compute var66 = 8 - var66.  
compute var67 = 8 - var67.  
compute var69 = 8 - var69.  
compute var71 = 8 - var71.  
compute var73 = 8 - var73.  
compute var74 = 8 - var74.  
compute var76 = 8 - var76.
```

```
compute var77 = 8 - var77.
```

```
compute var79 = 8 - var79.
```

```
missing values var1 var3 var4 var6 var7 var9(8).
```

```
var11 var13 var14 var16 var17 var19(8)
```

```
var21 var23 var24 var26 var27 var29(8)
```

```
var31 var33 var34 var36 var37 var39(8)
```

```
var41 var43 var44 var46 var47 var49(8)
```

```
var51 var53 var54 var56 var57 var59(8)
```

```
var61 var63 var64 var66 var67 var69(8)
```

```
var71 var73 var74 var76 var77 var79(8)
```

2. Generate an average score for each subscale

Add all 10 responses and divide by the number of items.

SPSS command example:

```
compute email = (var1+var2+var3+...+varn)/n.
```

SPSS command application:

```
compute S1 = (var1+var2+var3+var4+var5+var6+var7  
+var8+var9+var10)/10.
```

```
compute S2 = (var11+var12+var13+var14+var15+var16+var17  
+var18+var19+var20)/10.
```

```
compute S3 = (var21+var22+var23+var24+var25+var26+var27  
+var28+var29+var30)/10.
```

```
compute S4 = (var31+var32+var33+var34+var35+var36+va37  
+var38+var39+var40)/10.
```

```
compute S5 = (var41+var42+var43+var44+var45+var46+var47  
+var48+var49+var50)/10.
```

```
compute S6 = (var51+var52+var53+var54+var55+var56+var57  
+var58+var59+var60)/10.
```

```
compute S7 = (var61+var62+var63+var64+var65+var66+var67  
+var68+var69+var70)/10.
```

```
compute S8= (var71+var72+var73+var74+var75+var76+var77  
+var78+var79+var80)/10.
```