

# MULTIPLE REGRESSION

## : FORCED-ENTRY HIERARCHICAL MODEL

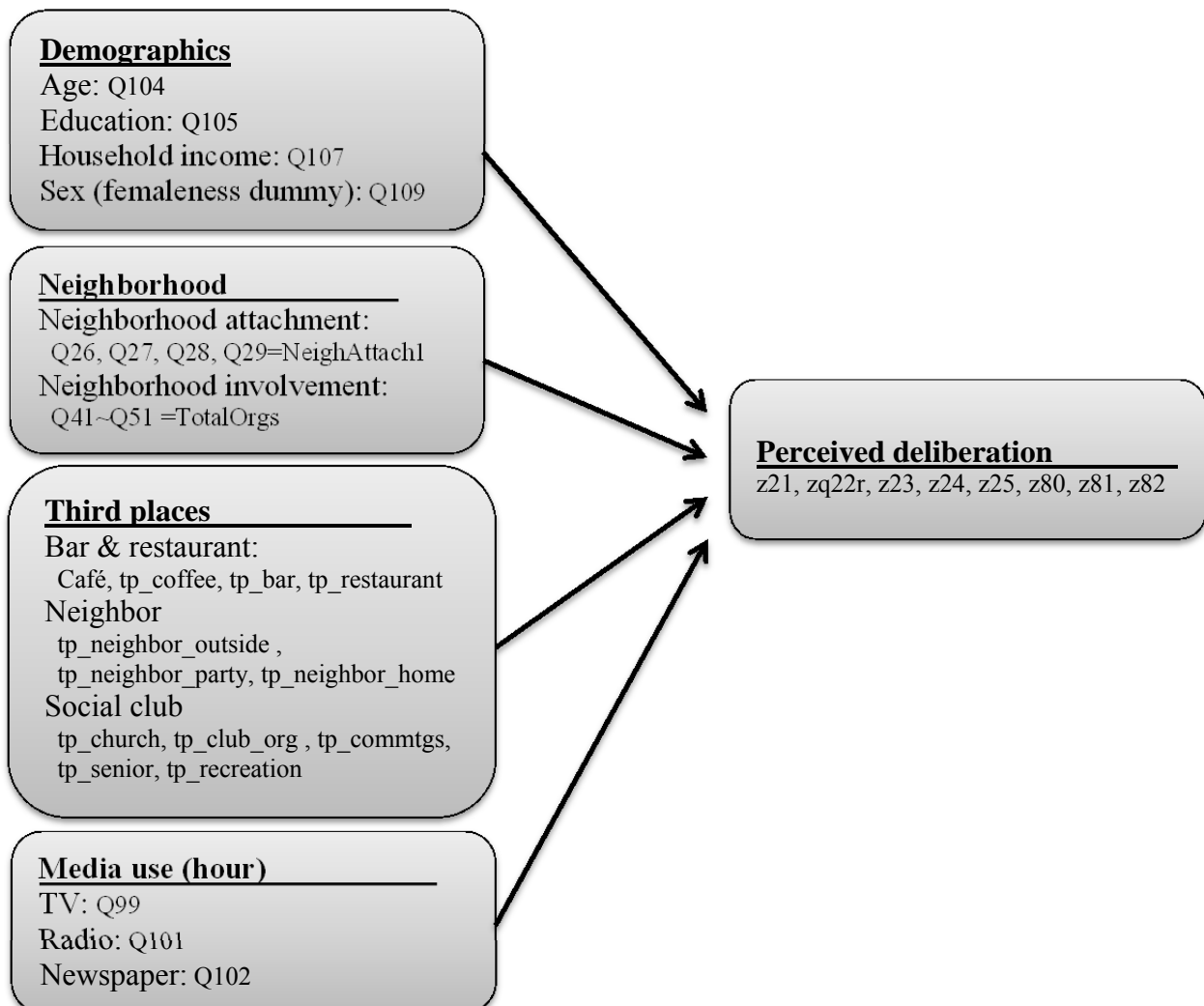
National Community Study 2006

National RDD survey conducted by CATI, Communication Research Center at Cleveland State University

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Date: Mar 25

## 1. Model



## **Demographics**

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### **-Age:**

104. What is your age: \*missing marked for 8~9

- 1- 18-20
- 2- 21-30
- 3- 31-40
- 4- 41-50
- 5- 51-60
- 6- 61-70
- 7-71 or older
- 9-(DECLINES TO ANSWER)

### **-Education:**

105. How much formal education have you completed? \*missing marked for 7~9

- 1-completed grade school (8 years or less)
- 2-some high school
- 3-high school graduate
- 4-some college
- 5-college graduate
- 6-advanced college degree
- 9-Missing information

### **-Household income:**

107. Now I'm going to read a list of annual income categories. Please stop me when I read the one that applies to your household. \*missing marked for 11~99, & 0

- 1- \$10,000 or less
- 2- \$10,001 to \$20,000
- 3- \$20,001 to \$30,000
- 4- \$30,001 to \$40,000
- 5- \$40,001 to \$50,000
- 6- \$50,001 to \$75,000
- 7- \$75,001 to \$100,000
- 8- \$100,001 to \$150,000
- 9- more than \$150,000
- 99-missing information/don't know/refused

**-Sex (dummy coding):** 0-male; 1-female

## Neighborhood

**-Neighborhood attachment:** (0 = completely disagree; 10 = completely agree): sum of standardized measurements.

\*\*Neighborhood attachment uses standardized measurement, because we found NeighAttach1, a scale that was already constructed, and it does not hurt the analysis, and time saving.

26. I'd feel lost if I had to move from my neighborhood.
27. I feel I'm a part of the community in which I live.
28. I feel a strong identification with my community.
29. I enjoy living in my neighborhood.

**-Neighborhood involvement:** (0 = no; 1 = yes): sum of each measurement.

\*\*This scale was also already constructed=TotalOrg

41. Do you belong to any business or civic groups like Kiwanis or Rotary?
42. How about religious organizations?
43. Charity or volunteer organizations?
44. Ethnic or racial organizations?
45. PTA or other school related groups?
46. Political clubs or organizations?
47. Social clubs such as card playing, music, hobbies, book club, and so on?
48. Youth groups like scouts or children's sports?
49. Any professional or work-related organizations?
50. Neighborhood associations such as block clubs?
51. Any other types of organizations not mentioned?

### Third place

The original third place measurements are measured by 0, 1. These were coded by the researcher from an open-ended item (Q53) that asked “What are the opportunities for communication in public places in your neighborhood, for example, places where people might chat informally or where friends and neighbors might go for a conversation?” Each set below should be summed, and then coded as dummy where greater or equal to 1 is one, and zero is zero; because, summing each measurement doesn't give a very good distribution for looking at agglomeration of places.

#### **- Bar & restaurant:**

Café, tp\_coffee, tp\_bar, tp\_restaurant

#### **- Neighbor**

tp\_neighbor\_outside , tp\_neighbor\_party, tp\_neighbor\_home

#### **-Social club**

tp\_church, tp\_club\_org , tp\_commtgs, tp\_senior, tp\_recreation

### Media use

**-TV (99):** How many hours of TV did you watch yesterday? (0~11 hours, yesterday)

**-Radio (101):** How many hours did you listen to the radio yesterday? (0~11 hours, yesterday)

**-Newspaper (102):** How many days last week did you read a newspaper? (0~7 days in a week)

## **Perceived deliberation**

Deliberation (Habermas, 2006) is a combination of thoughtful problem analysis and egalitarian process that communicators have adequate communication opportunities and engage in attentive listening or dialogue that connects divergent spectrums of speaking and knowing (Burkhalter, Gastil, & Kelshaw, 2002). So I included below questions in the manner of perception of deliberation. Each measurement has been standardized and Q22 has been reverse coded, after then, the mean of the eight items was taken, as a scale of perceived deliberation.

Moy and Gastil (2006) argued that print media use and interpersonal discussion enhance deliberation, and television news viewing hindered deliberation. At this study deliberation was defined “deliberative conversation”, so I want to test “perceived deliberation” has same phenomena. Also, McLeod et al. (1999) argued that having more discussion partners makes communication process and participation, so I controlled the effect of neighborhood and third place.

Q21: I'd feel comfortable voicing a complaint at a public meeting in my community.

Q22: People in this community seem to be afraid to speak up when they disagree.

Q23: Public officials in my community seem receptive to views of residents.

Q24. I generally discuss political candidates and issues with neighbors at election time.

Q25. I generally discuss political candidates and issues with family and friends at election time.

Q80. How many days in the past week did you engage in political discussion with friends and family, never, once, a couple times, almost every day, or several times a day?

Q81. How often do you discuss politics with people whose political views are different from yours--almost never, seldom, sometimes, or frequently?

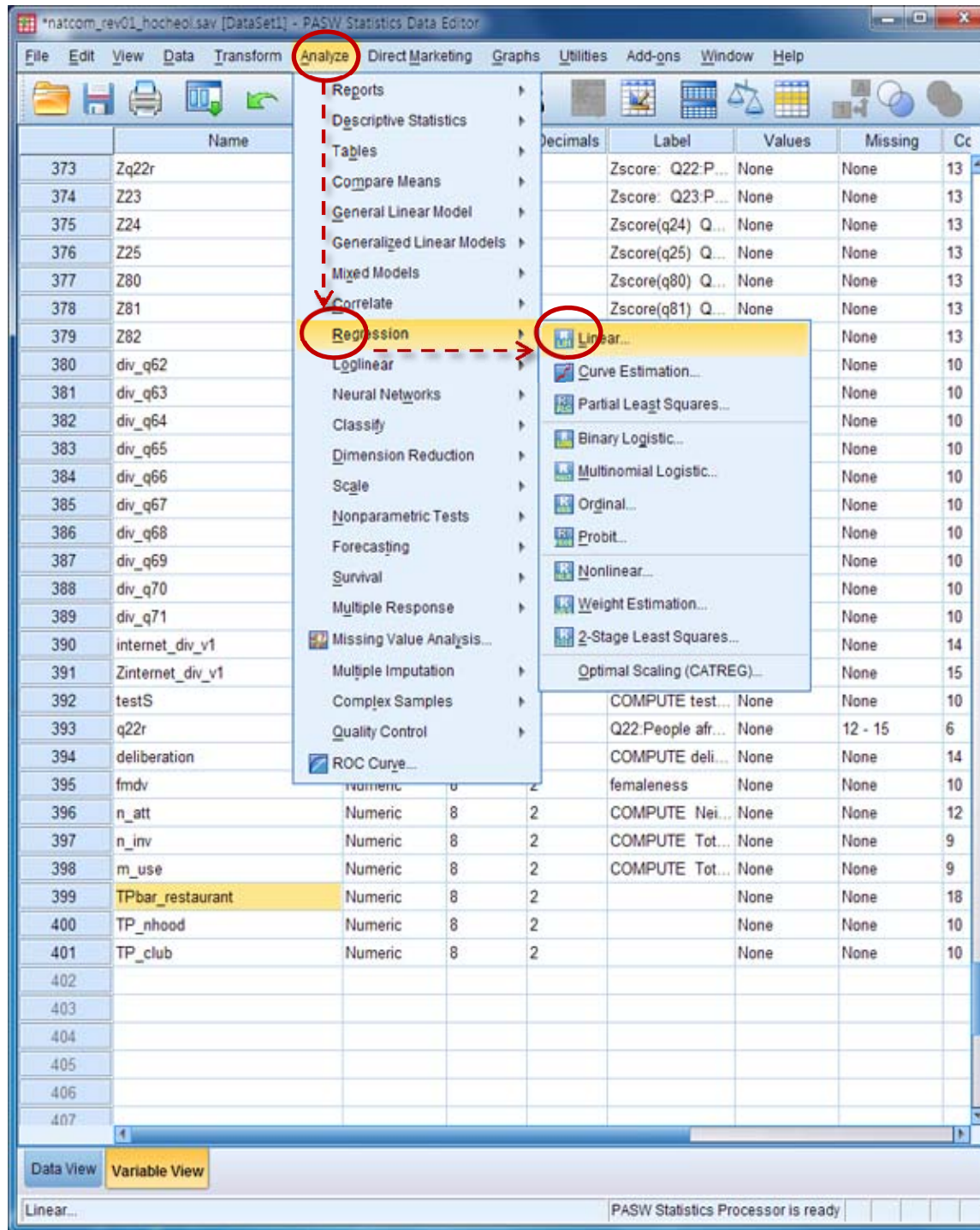
Q82. About how many people do you discuss politics with on a regular basis, none, one, two or three, five to ten, or more than that?

## References

- Burkhalter, S., Gastil, J., & Kelshaw, T. (2002). A conceptual definition and theoretical model of public deliberation in Small Face—to—Face Groups. *Communication Theory*, 12(4), 398-422. doi: 10.1111/j.1468-2885.2002.tb00276.x
- Habermas, J. (2006). Three normative models of democracy. *Constellations*, 1(1), 1-10.
- McLeod, J. M., Scheufele, D. A., Moy, P., Horowitz, E. M., Holbert, R. L., Zhang, W., . . . Zubric, J. (1999). Understanding deliberation The effects of discussion networks on participation in a public forum. *Communication Research*, 26(6), 743-774.
- Moy, P., & Gastil, J. (2006). Predicting deliberative conversation: The impact of discussion networks, media use, and political cognitions. *Political Communication*, 23(4), 443-460. doi: 10.1080/10584600600977003

## 2. Running SPSS

### 1) Analysis -> Regression -> Linear





## 2) Select dependent variable Click variable name->arrow

The screenshot shows the PASW Statistics Data Editor interface. A dialog box titled "Linear Regression" is open, allowing the user to select a dependent variable. The "Dependent:" field is currently empty, and a red circle highlights it. A red dashed arrow points from the variable "deliberation" in the list of variables to the "Dependent:" field. The "Independent(s):" field is also empty. The "Method:" is set to "Enter". The "Selection Variable:", "Case Labels:", and "WLS Weight:" fields are also empty. The "Dependent:" field has a red circle around it, and a red dashed arrow points from the variable "deliberation" in the list to the "Dependent:" field.

	Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align
352	tp_misc	Numeric	1	0	ThirdPlaces: ot...	None	None	8	Right
353	CoffeeBarRest	Numeric	8	2	COMPUTE Cof...	None	None	13	Right
354	NeighOIPart...	Numeric	8	2	COMPUTE Nei...	None	None	14	Right
355	OrgandCent...	Numeric	8	2	COMPUTE Or...	None	None	13	Right
356	Zq100	Numeric	11	5	Zscore: Q100...	None	None	11	Right
357	Zq102	Numeric	11	5	Zscore: Q102...	None	None	11	Right
358	NewsMedia	Numeric	8	2	COMPUTE Ne...	None	None	9	Right
359	Express								
360	ComfortTa								
361	SPoIDNetw								
362	TPRestaur								
363	EatDrinkTa								
364	OrgTPActi								
365	OutsideAc								
366	Commerci								
367	EatDrinkTa								
368	OrgTPActi								
369	OutsideAc								
370	Commerci								
371	Z21								
372	Z22								
373	Zq22r								
374	Z23								
375	Z24								
376	Z25								
377	Z80								
378	Z81								
379	Z82	Numeric	11	5	Zscore(q82) Q...	None	None	13	Right
380	div_q62	Numeric	8	2		None	None	10	Right
381	div_q63	Numeric	8	2		None	None	10	Right
382	div_q64	Numeric	8	2		None	None	10	Right
383	div_q65	Numeric	8	2		None	None	10	Right
384	div_q66	Numeric	8	2		None	None	10	Right
385	div_q67	Numeric	8	2		None	None	10	Right
386	div_q68	Numeric	8	2		None	None	10	Right



### 3) Select independent variables for block1 Click independent variable name->arrow

The screenshot shows the PASW Statistics Data Editor interface. A data table is visible in the background with columns: Name, Type, Width, Decimals, Label, Values, Missing, Columns, and Aligr. The 'Linear Regression' dialog box is open, showing the following settings:

- Dependent:** deliberation
- Block 1 of 1:** Previous, Next
- Independent(s):** (Empty list)
- Method:** Enter
- Selection Variable:** (Empty field)
- Case Labels:** (Empty field)
- WLS Weight:** (Empty field)

The variable list on the left side of the dialog box includes: q97, q98, q99, q100, q101, q102, q103, q104, q105, q106, q107, q108, q109, quit, TotalOrgs, TotalWebVisit, TotalTech, Z21, Z22, Z23, Z24, Z25, Z80, Z81, Z82, div\_q62, div\_q63, div\_q64, div\_q65, div\_q66, div\_q67, div\_q68.

Red dashed arrows indicate the selection process: one arrow points from 'q103', another from 'q104', and a third from 'q106' to the right-pointing arrow button in the 'Independent(s)' field. A red circle highlights this arrow button.

#### 4) Move to the next block Click next

The screenshot shows the PASW Statistics Data Editor interface. A data table is visible in the background with columns for Name, Type, Width, Decimals, Label, Values, Missing, Columns, and Align. A 'Linear Regression' dialog box is open in the foreground. The dialog box has the following settings:

- Dependent:** deliberation
- Block 1 of 1:** Previous, **Next** (circled in red)
- Independent(s):** q104, q105, q107
- Method:** Enter
- Selection Variables:** (empty)
- Case Labels:** (empty)
- WLS Weight:** (empty)

Buttons at the bottom of the dialog box include OK, Paste, Reset, Cancel, and Help. A callout box labeled 'Enter' points to the 'Method' dropdown menu.

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align
352	tp_misc	Numeric	1	0	ThirdPlaces: ot...	None	None	8
353	CoffeeBarRest	Numeric	8	2	COMPUTE Cof...	None	None	13
354	NeighOIPart...	Numeric	8	2	COMPUTE Nei...	None	None	14
355	OrgandCent...	Numeric	8	2	COMPUTE Or...	None	None	13
356	Zq100	Numeric	11	5	Zscore: Q100...	None	None	11
357	Zq102	Numeric	11	5	Zscore: Q102...	None	None	11
358	NewsMedia	Numeric	8	2	COMPUTE Ne...	None	None	9
359	Express							
360	ComfortTa							
361	SPoIDNet							
362	TPRestaur							
363	EatDrinkT							
364	OrgTPActi							
365	OutsideAc							
366	Commerci							
367	EatDrinkT							
368	OrgTPActi							
369	OutsideAc							
370	Commerci							
371	Z21							
372	Z22							
373	Zq22r							
374	Z23							
375	Z24							
376	Z25							
377	Z80							
378	Z81							
379	Z82	Numeric	11	5	Zscore(q82) Q...	None	None	13
380	div_q62	Numeric	8	2		None	None	10
381	div_q63	Numeric	8	2		None	None	10
382	div_q64	Numeric	8	2		None	None	10
383	div_q65	Numeric	8	2		None	None	10
384	div_q66	Numeric	8	2		None	None	10
385	div_q67	Numeric	8	2		None	None	10
386	div_q68	Numeric	8	2		None	None	10



## 5) Select independent variables for block2

Click variable name->arrow

[NOTE: Screenshots for blocks 3 and 4 are not shown]

The screenshot shows the PASW Statistics Data Editor interface. A 'Linear Regression' dialog box is open, displaying the following details:

- Dependent:** deliberation
- Block 2 of 2**
- Independent(s):** (Empty list)
- Method:** Enter
- Selection Variable:** (Empty)
- Case Labels:** (Empty)
- WLS Weight:** (Empty)

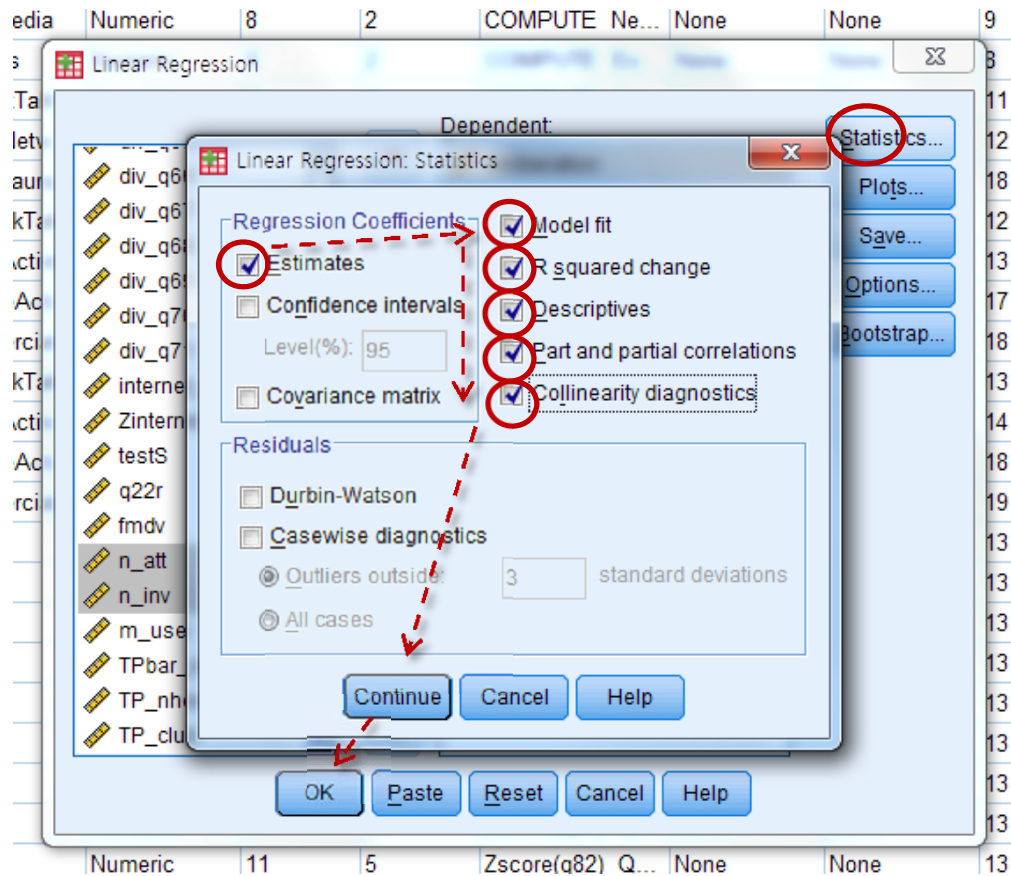
The background variable list includes the following variables:

Name	Type	Width	Decimals	Label	Values	Missing	Columns	Align	
352	tp_misc	Numeric	1	0	ThirdPlaces: ot...	None	None	8	Right
353	CoffeeBarRest	Numeric	8	2	COMPUTE Cof...	None	None	13	Right
354	NeighOIPart...	Numeric	8	2	COMPUTE Nei...	None	None	14	Right
355	OrgandCent...	Numeric	8	2	COMPUTE Or...	None	None	13	Right
356	Zq100	Numeric	11	5	Zscore: Q100...	None	None	11	Right
357	Zq102	Numeric	11	5	Zscore: Q102...	None	None	11	Right
358	NewsMedia	Numeric	8	2	COMPUTE Ne...	None	None	9	Right
359	Express								
360	ComfortTa								
361	SPoIDNet								
362	TPRestau								
363	EatDrinkT								
364	OrgTPAct								
365	OutsideAd								
366	Commerci								
367	EatDrinkT								
368	OrgTPAct								
369	OutsideAd								
370	Commerci								
371	Z21								
372	Z22								
373	Zq22r								
374	Z23								
375	Z24								
376	Z25								
377	Z80								
378	Z81								
379	Z82	Numeric	11	5	Zscore(q82) Q...	None	None	13	Right
380	div_q62	Numeric	8	2		None	None	10	Right
381	div_q63	Numeric	8	2		None	None	10	Right
382	div_q64	Numeric	8	2		None	None	10	Right
383	div_q65	Numeric	8	2		None	None	10	Right
384	div_q66	Numeric	8	2		None	None	10	Right
385	div_q67	Numeric	8	2		None	None	10	Right
386	div_q68	Numeric	8	2		None	None	10	Right

## 6) Statistics setting

### 6.a Click statistics

6.b Click Estimates, Model fit, R square change, Descriptive, Part and partial correlations, Collinearity diagnostics.



\*\* The way of making plots are not included.

7) Click “Continue” and then “OK” to run the procedure

# 3. SPSS Output

## 1. Syntax

```

REGRESSION
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
  /MISSING LISTWISE
  /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE ZPP
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT deliberation
  /METHOD=ENTER q104 q105 q107 fmdv
  /METHOD=ENTER n_att n_inv
  /METHOD=ENTER TPbar_restaurant TP_nhood TP_club
  /METHOD=ENTER q99, q101, q102
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
  /RESIDUALS HISTOGRAM(ZRESID).

```

## 2. Regression

### Notes

Output Created		21:3월:201316시 36분 26초
Comments		
Input	Data	C:\Users\LenovoM50\AppData\Local\Temp\OneNote\14.0\NT1 atcom_rev02_hocheol.sav
	Active Dataset	DataSet1
	File Label	CP05
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data	482
	File	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.

Syntax

REGRESSION

```

/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA COLLIN TOL

```

CHANGE ZPP

```

/CRITERIA=PIN(.05) POUT(.10)

```

```

/NOORIGIN

```

```

/DEPENDENT deliberation

```

```

/METHOD=ENTER q104 q105 q107 fmdv

```

```

/METHOD=ENTER n_att n_inv

```

```

/METHOD=ENTER TPbar_restaurant TP_nhood

```

TP\_club

```

/METHOD=ENTER q99, q101, q102

```

```

/SCATTERPLOT=(deliberation , *ZPRED)

```

(\*ZPRED , \*ZRESID)

```

/RESIDUALS DURBIN HISTOGRAM(ZRESID)

```

NORMPROB(ZRESID).

Resources

Processor Time

00:00:01.123

Elapsed Time

00:00:01.090

Memory Required

18236 bytes

Additional Memory Required

1080 bytes

for Residual Plots



## Descriptive Statistics

	Mean	Std. Deviation	N
Deliberation	.0037	.59531	340
Age	4.35	1.619	340
Education	4.07	1.325	340
Household income	4.73	2.211	340
Sex(femaleness dummy)	.5118	.50060	340
Neighbor attachment	-.1773	3.23016	340
Neighbor involvement	2.8647	2.38591	340
TPbar_restaurant	.2706	.44492	340
TP_nhood	.1735	.37926	340
TP_club	.3529	.47859	340
No.hours watched TV yesterday	3.06	2.304	340
Hours listened to radio yesterday	1.97	2.695	340
No.days read paper last week	3.73	2.817	340

## Correlations

		Deliberation	Age	Education	Household income
Pearson Correlation	Deliberation	1.000	.128	.302	.324
	Age	.128	1.000	-.004	-.040
	Education	.302	-.004	1.000	.485
	Household income	.324	-.040	.485	1.000
	Sex(femaleness dummy)	-.172	-.031	-.083	-.064
	Neighbor attachment	.290	.355	-.003	-.003
	Neighbor involvement	.354	.004	.285	.246
	TPbar_restaurant	.099	-.028	.124	.054
	TP_nhood	.034	-.026	-.006	-.018
	TP_club	.221	.112	.139	.071
	No.hours watched TV yesterday	-.210	.105	-.271	-.288
	Hours listened to radio yesterday	.138	-.109	-.078	-.018
	No.days read paper last week	.348	.311	.263	.151
	Sig. (1-tailed)	Deliberation	.	.009	.000
Age		.009	.	.470	.233
Education		.000	.470	.	.000
Household income		.000	.233	.000	.

	Sex(femaleness dummy)	.001	.287	.062	.121
	Neighbor attachment	.000	.000	.475	.477
	Neighbor involvement	.000	.472	.000	.000
	TPbar_restaurant	.035	.301	.011	.162
	TP_nhood	.265	.314	.457	.372
	TP_club	.000	.020	.005	.096
	No.hours watched TV yesterday	.000	.027	.000	.000
	Hours listened to radio yesterday	.005	.022	.076	.374
	No.days read paper last week	.000	.000	.000	.003
N	Deliberation	340	340	340	340
	Age	340	340	340	340
	Education	340	340	340	340
	Household income	340	340	340	340
	Sex(femaleness dummy)	340	340	340	340
	Neighbor attachment	340	340	340	340
	Neighbor involvement	340	340	340	340
	TPbar_restaurant	340	340	340	340
	TP_nhood	340	340	340	340
	TP_club	340	340	340	340
	No.hours watched TV yesterday	340	340	340	340
	Hours listened to radio yesterday	340	340	340	340
	No.days read paper last week	340	340	340	340

## Correlations

	Sex(femaleness dummy)	Neighbor attachment	Neighbor involvement	TPbar_restaurant
Pearson Correlation				
Deliberation	-.172	.290	.354	.099
Age	-.031	.355	.004	-.028
Education	-.083	-.003	.285	.124
Household income	-.064	-.003	.246	.054
Sex(femaleness dummy)	1.000	.095	-.142	.025
Neighbor attachment	.095	1.000	.143	.036
Neighbor involvement	-.142	.143	1.000	.073
TPbar_restaurant	.025	.036	.073	1.000
TP_nhood	-.034	.040	.026	-.052
TP_club	-.017	.171	.269	-.117
No.hours watched TV yesterday	.067	.006	-.202	-.042
Hours listened to radio yesterday	-.014	-.049	.032	.048
No.days read paper last week	.028	.235	.267	.095
Sig. (1-tailed)				
Deliberation	.001	.000	.000	.035
Age	.287	.000	.472	.301

	Education	.062	.475	.000	.011
	Household income	.121	.477	.000	.162
	Sex(femaleness dummy)	.	.040	.004	.320
	Neighbor attachment	.040	.	.004	.254
	Neighbor involvement	.004	.004	.	.088
	TPbar_restaurant	.320	.254	.088	.
	TP_nhood	.266	.232	.316	.170
	TP_club	.375	.001	.000	.015
	No.hours watched TV yesterday	.108	.457	.000	.219
	Hours listened to radio yesterday	.399	.184	.281	.190
	No.days read paper last week	.301	.000	.000	.041
N	Deliberation	340	340	340	340
	Age	340	340	340	340
	Education	340	340	340	340
	Household income	340	340	340	340
	Sex(femaleness dummy)	340	340	340	340
	Neighbor attachment	340	340	340	340
	Neighbor involvement	340	340	340	340
	TPbar_restaurant	340	340	340	340
	TP_nhood	340	340	340	340
	TP_club	340	340	340	340
	No.hours watched TV yesterday	340	340	340	340
	Hours listened to radio yesterday	340	340	340	340
	No.days read paper last week	340	340	340	340

## Correlations

		TP_nhood	TP_club	No.hours watched TV yesterday
Pearson Correlation	Deliberation	.034	.221	-.210
	Age	-.026	.112	.105
	Education	-.006	.139	-.271
	Household income	-.018	.071	-.288
	Sex(femaleness dummy)	-.034	-.017	.067
	Neighbor attachment	.040	.171	.006
	Neighbor involvement	.026	.269	-.202
	TPbar_restaurant	-.052	-.117	-.042
	TP_nhood	1.000	-.176	-.016
	TP_club	-.176	1.000	-.028
	No.hours watched TV yesterday	-.016	-.028	1.000
	Hours listened to radio yesterday	.045	.003	-.071
	No.days read paper last week	.003	.098	-.096
Sig. (1-tailed)	Deliberation	.265	.000	.000

	Age	.314	.020	.027
	Education	.457	.005	.000
	Household income	.372	.096	.000
	Sex(femaleness dummy)	.266	.375	.108
	Neighbor attachment	.232	.001	.457
	Neighbor involvement	.316	.000	.000
	TPbar_restaurant	.170	.015	.219
	TP_nhood	.	.001	.387
	TP_club	.001	.	.304
	No.hours watched TV yesterday	.387	.304	.
	Hours listened to radio yesterday	.205	.480	.097
	No.days read paper last week	.477	.035	.039
N	Deliberation	340	340	340
	Age	340	340	340
	Education	340	340	340
	Household income	340	340	340
	Sex(femaleness dummy)	340	340	340
	Neighbor attachment	340	340	340
	Neighbor involvement	340	340	340
	TPbar_restaurant	340	340	340
	TP_nhood	340	340	340
	TP_club	340	340	340
	No.hours watched TV yesterday	340	340	340
	Hours listened to radio yesterday	340	340	340
	No.days read paper last week	340	340	340

### Correlations

		Hours listened to radio yesterday	No.days read paper last week
Pearson Correlation	Deliberation	.138	.348
	Age	-.109	.311
	Education	-.078	.263
	Household income	-.018	.151
	Sex(femaleness dummy)	-.014	.028
	Neighbor attachment	-.049	.235
	Neighbor involvement	.032	.267
	TPbar_restaurant	.048	.095
	TP_nhood	.045	.003
	TP_club	.003	.098
	No.hours watched TV yesterday	-.071	-.096
	Hours listened to radio yesterday	1.000	.039

	No.days read paper last week	.039	1.000
Sig. (1-tailed)	Deliberation	.005	.000
	Age	.022	.000
	Education	.076	.000
	Household income	.374	.003
	Sex(femaleness dummy)	.399	.301
	Neighbor attachment	.184	.000
	Neighbor involvement	.281	.000
	TPbar_restaurant	.190	.041
	TP_nhood	.205	.477
	TP_club	.480	.035
	No.hours watched TV yesterday	.097	.039
	Hours listened to radio yesterday	.	.236
	No.days read paper last week	.236	.
	N	Deliberation	340
Age		340	340
Education		340	340
Household income		340	340
Sex(femaleness dummy)		340	340
Neighbor attachment		340	340
Neighbor involvement		340	340
TPbar_restaurant		340	340
TP_nhood		340	340
TP_club		340	340
No.hours watched TV yesterday		340	340
Hours listened to radio yesterday		340	340
No.days read paper last week		340	340

Variables Entered/Removed<sup>b</sup>

Model	Variables Entered	Variables Removed	Method
1	Sex(femaleness dummy), Age, Household income, Education <sup>a</sup>	.	Enter
2	Neighbor involvement, Neighbor attachment <sup>a</sup>	.	Enter
3	TP_nhood, TPbar_restaurant, TP_club <sup>a</sup>	.	Enter

4	Hours listened to radio yesterday, No.hours watched TV yesterday, No.days read paper last week <sup>a</sup>		Enter
---	---	--	-------

- a. All requested variables entered.
- b. Dependent Variable: Deliberation

**Model Summary<sup>e</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.413 <sup>a</sup>	.170	.161	.54544	.170	17.206	4	335	.000
2	.533 <sup>b</sup>	.285	.272	.50805	.114	26.559	2	333	.000
3	.546 <sup>c</sup>	.298	.279	.50556	.013	2.098	3	330	.100
4	.594 <sup>d</sup>	.352	.329	.48774	.055	9.182	3	327	.000

**ANOVA<sup>e</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.476	4	5.119	17.206	.000 <sup>a</sup>
	Residual	99.663	335	.298		
	Total	120.139	339			
2	Regression	34.186	6	5.698	22.074	.000 <sup>b</sup>
	Residual	85.953	333	.258		
	Total	120.139	339			
3	Regression	35.795	9	3.977	15.561	.000 <sup>c</sup>
	Residual	84.344	330	.256		
	Total	120.139	339			
4	Regression	42.348	12	3.529	14.834	.000 <sup>d</sup>
	Residual	77.791	327	.238		
	Total	120.139	339			



Coefficients<sup>a</sup>

Model	Unstandardized		Standardized	t	Sig.	Correlations			Collinearity	
	Coefficients		Coefficients			Zero- order	Partial	Part	Statistics	
	B	Std. Error	Beta						Tolerance	VIF
1 (Constant)	-.750	.134		-5.607	.000					
Age	.049	.018	.134	2.694	.007	.128	.146	.134	.997	1.003
Education	.080	.026	.178	3.123	.002	.302	.168	.155	.761	1.313
Household income	.063	.015	.234	4.098	.000	.324	.219	.204	.762	1.312
Sex(femaleness dummy)	-.164	.059	-.138	-2.762	.006	-.172	-.149	-.137	.991	1.009
2 (Constant)	-.615	.130		-4.715	.000					
Age	.014	.018	.039	.785	.433	.128	.043	.036	.865	1.156
Education	.061	.024	.135	2.501	.013	.302	.136	.116	.733	1.364
Household income	.054	.014	.200	3.733	.000	.324	.200	.173	.750	1.333
Sex(femaleness dummy)	-.169	.056	-.142	-2.998	.003	-.172	-.162	-.139	.959	1.043
Neighbor attachment	.048	.009	.261	5.154	.000	.290	.272	.239	.836	1.196
Neighbor involvement	.052	.012	.208	4.177	.000	.354	.223	.194	.863	1.158
3 (Constant)	-.647	.132		-4.923	.000					
Age	.013	.018	.036	.731	.465	.128	.040	.034	.859	1.164
Education	.053	.024	.117	2.156	.032	.302	.118	.099	.718	1.392
Household income	.055	.014	.205	3.841	.000	.324	.207	.177	.749	1.336
Sex(femaleness dummy)	-.171	.056	-.144	-3.056	.002	-.172	-.166	-.141	.956	1.046
Neighbor attachment	.045	.009	.244	4.778	.000	.290	.254	.220	.819	1.221
Neighbor involvement	.045	.013	.178	3.484	.001	.354	.188	.161	.811	1.233

	TPbar_restaurant	.095	.063	.071	1.503	.134	.099	.082	.069	.948	1.055
	TP_nhood	.068	.074	.043	.915	.361	.034	.050	.042	.949	1.054
	TP_club	.137	.063	.110	2.194	.029	.221	.120	.101	.840	1.190
4	(Constant)	-.622	.144		-4.310	.000					
	Age	.002	.019	.005	.100	.920	.128	.006	.004	.771	1.297
	Education	.039	.024	.086	1.584	.114	.302	.087	.070	.671	1.490
	Household income	.050	.014	.187	3.589	.000	.324	.195	.160	.728	1.374
	Sex(femaleness dummy)	-.182	.054	-.153	-3.354	.001	-.172	-.182	-.149	.948	1.054
	Neighbor attachment	.042	.009	.227	4.589	.000	.290	.246	.204	.809	1.237
	Neighbor involvement	.032	.013	.127	2.507	.013	.354	.137	.112	.769	1.300
	TPbar_restaurant	.071	.061	.053	1.150	.251	.099	.063	.051	.941	1.062
	TP_nhood	.055	.072	.035	.770	.442	.034	.043	.034	.947	1.056
	TP_club	.139	.060	.112	2.305	.022	.221	.126	.103	.838	1.194
	No.hours watched TV yesterday	-.017	.012	-.065	-1.363	.174	-.210	-.075	-.061	.865	1.156
	Hours listened to radio yesterday	.030	.010	.138	3.027	.003	.138	.165	.135	.958	1.044
	No.days read paper last week	.039	.011	.184	3.624	.000	.348	.196	.161	.766	1.305

a. Dependent Variable: Deliberation

Excluded Variables<sup>d</sup>

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	Neighbor attachment	.298 <sup>a</sup>	5.831	.000	.304	.863	1.159	.761
	Neighbor involvement	.253 <sup>a</sup>	4.966	.000	.262	.890	1.123	.734
	TPbar_restaurant	.073 <sup>a</sup>	1.450	.148	.079	.983	1.018	.751
	TP_nhood	.038 <sup>a</sup>	.768	.443	.042	.998	1.002	.761
	TP_club	.168 <sup>a</sup>	3.374	.001	.182	.968	1.033	.751
	No.hours watched TV yesterday	-.112 <sup>a</sup>	-2.132	.034	-.116	.883	1.132	.737
	Hours listened to radio yesterday	.172 <sup>a</sup>	3.487	.001	.187	.981	1.019	.757
	No.days read paper last week	.275 <sup>a</sup>	5.218	.000	.275	.828	1.208	.721
	2	TPbar_restaurant	.052 <sup>b</sup>	1.117	.265	.061	.979	1.021
TP_nhood		.019 <sup>b</sup>	.408	.683	.022	.994	1.006	.733
TP_club		.090 <sup>b</sup>	1.847	.066	.101	.899	1.112	.729
No.hours watched TV yesterday		-.080 <sup>b</sup>	-1.612	.108	-.088	.872	1.147	.720
Hours listened to radio yesterday		.165 <sup>b</sup>	3.572	.000	.192	.978	1.023	.728
No.days read paper last week		.201 <sup>b</sup>	3.908	.000	.210	.778	1.286	.705
3	No.hours watched TV yesterday	-.082 <sup>c</sup>	-1.673	.095	-.092	.871	1.148	.705
	Hours listened to radio yesterday	.158 <sup>c</sup>	3.435	.001	.186	.972	1.029	.712
	No.days read paper last week	.201 <sup>c</sup>	3.924	.000	.211	.774	1.292	.692

a. Predictors in the Model: (Constant), Sex(femaleness dummy), Age, Household income, Education

b. Predictors in the Model: (Constant), Sex(femaleness dummy), Age, Household income, Education, Neighbor involvement, Neighbor attachment

c. Predictors in the Model: (Constant), Sex(femaleness dummy), Age, Household income, Education, Neighbor involvement, Neighbor attachment, TP\_nhood, TPbar\_restaurant, TP\_club

d. Dependent Variable: Deliberation

Collinearity Diagnostics<sup>a</sup>

	Model	Dimension	Eigenvalue	Condition Index	Variance Proportions													
					(Constant)	Age	Education	Household income	Sex(femaleness dummy)	Neighbor attachment	Neighbor involvement	TPbar_restaurant	TP_nhood	TP_club	No.hours watched TV yesterday	Hours listened to radio yesterday	No.days read paper last week	
1	1	1	4.273	1.000	.00	.01	.00	.01	.02									
		2	.460	3.046	.00	.01	.01	.02	.89									
		3	.163	5.120	.01	.39	.02	.34	.02									
		4	.069	7.877	.05	.25	.50	.64	.01									
		5	.035	11.080	.94	.35	.48	.00	.07									
2	1	1	4.920	1.000	.00	.00	.00	.00	.01	.00	.01							
		2	1.019	2.197	.00	.00	.00	.00	.00	.80	.00							
		3	.536	3.029	.00	.00	.00	.00	.62	.00	.17							
		4	.278	4.208	.01	.06	.01	.02	.27	.01	.72							
		5	.150	5.735	.01	.26	.02	.47	.01	.06	.07							
		6	.065	8.732	.02	.23	.62	.51	.01	.05	.03							
		7	.032	12.335	.96	.44	.35	.00	.08	.08	.00							
3	1	1	5.825	1.000	.00	.00	.00	.00	.01	.00	.01	.01	.00	.01				
		2	1.051	2.354	.00	.00	.00	.00	.00	.67	.00	.01	.01	.04				
		3	.889	2.559	.00	.00	.00	.00	.00	.05	.00	.00	.69	.09				
		4	.766	2.758	.00	.00	.00	.00	.00	.04	.00	.66	.04	.12				
		5	.567	3.206	.00	.00	.00	.00	.54	.00	.09	.10	.03	.06				
		6	.386	3.887	.00	.01	.01	.03	.11	.04	.05	.20	.19	.63				
		7	.273	4.615	.01	.06	.01	.01	.24	.01	.74	.00	.00	.04				
		8	.148	6.273	.01	.27	.02	.45	.01	.05	.09	.00	.00	.01				
		9	.063	9.607	.02	.21	.64	.50	.01	.05	.02	.02	.01	.01				
		10	.032	13.516	.96	.44	.33	.00	.08	.08	.00	.00	.01	.00				

4	1	7.494	1.000	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
	2	1.083	2.631	.00	.00	.00	.00	.00	.61	.00	.00	.01	.04	.00	.02	.00
	3	.890	2.902	.00	.00	.00	.00	.00	.06	.00	.00	.68	.09	.00	.00	.00
	4	.767	3.126	.00	.00	.00	.00	.00	.03	.00	.67	.04	.12	.00	.00	.00
	5	.645	3.409	.00	.00	.00	.00	.16	.00	.04	.01	.00	.03	.08	.45	.00
	6	.603	3.527	.00	.00	.00	.00	.15	.05	.07	.05	.05	.02	.03	.45	.00
	7	.419	4.229	.00	.00	.00	.02	.00	.00	.02	.23	.14	.54	.05	.00	.12
	8	.404	4.310	.00	.01	.00	.00	.54	.02	.01	.00	.02	.03	.33	.00	.00
	9	.258	5.388	.00	.01	.00	.01	.02	.04	.48	.01	.02	.12	.04	.00	.48
	10	.235	5.642	.00	.01	.02	.16	.05	.06	.31	.00	.00	.00	.10	.00	.24
	11	.114	8.118	.01	.45	.00	.29	.00	.04	.03	.00	.00	.01	.25	.00	.11
	12	.063	10.910	.02	.16	.61	.51	.01	.05	.02	.02	.01	.01	.00	.00	.00
	13	.026	17.063	.96	.35	.36	.01	.07	.04	.01	.00	.01	.00	.13	.07	.00

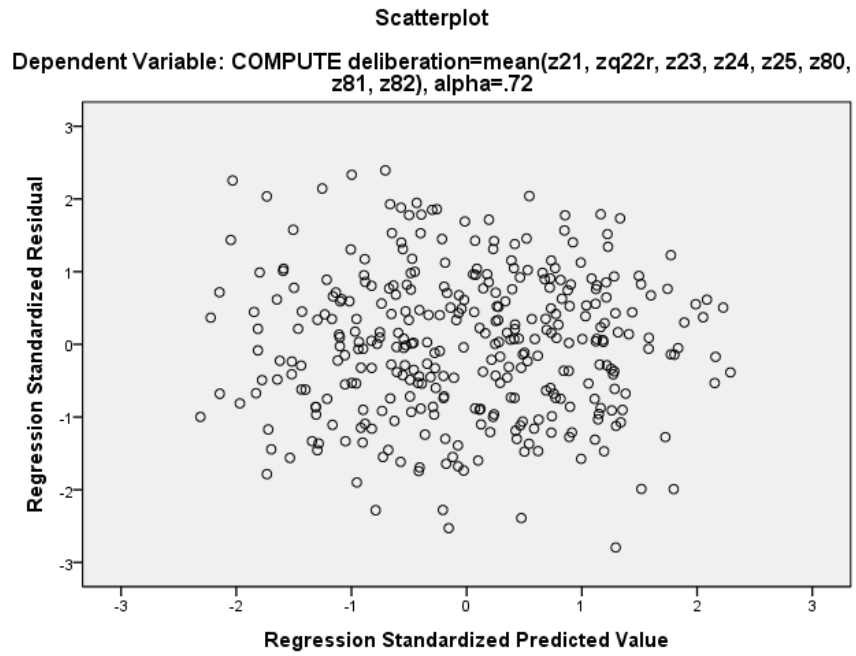
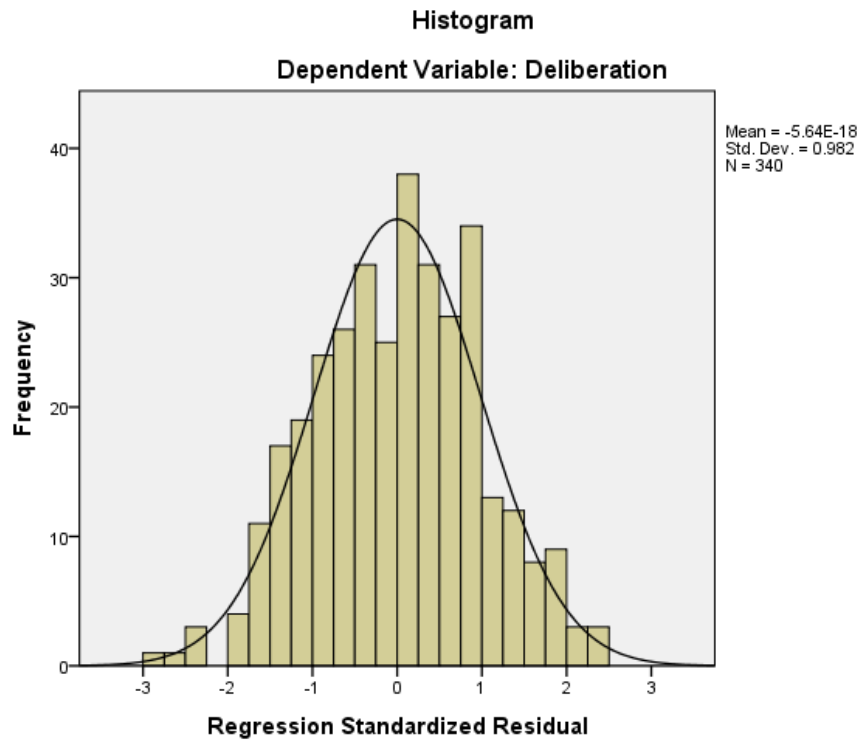
**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	-.8133	.8129	.0037	.35344	340
Residual	-1.36297	1.16717	.00000	.47903	340
Std. Predicted Value	-2.312	2.289	.000	1.000	340
Std. Residual	-2.794	2.393	.000	.982	340

a. Dependent Variable: Deliberation

### Charts

\*\*According to the instructions on chapter 2, you might not have below charts.





# 4. Tabling Results

**Table 1**  
Correlations

	Perceived deliberation	Age	Education	Household income	Sex(femaleness dummy)	Neighborhood attachment	Neighborhood involvement	Bar & restaurant	Neighborhood	Club	TV	Radio
Age	<b>.13**</b>											
Education	<b>.30***</b>	-.00										
Household income	<b>.32***</b>	-.04	<b>.49***</b>									
Sex (femaleness dummy)	<b>-.17**</b>	-.03	-.08	-.06								
Neighborhood attachment	<b>.29***</b>	<b>.36***</b>	-.00	-.00	<b>.10*</b>							
Neighborhood involvement	<b>.35***</b>	.00	<b>.29***</b>	<b>.25***</b>	<b>-.14**</b>	<b>.14**</b>						
Bar & restaurant	<b>.10*</b>	-.03	<b>.12*</b>	.05	.03	.04	.07					
Neighborhood	.03	-.03	-.01	-.02	-.03	.04	.03	-.05				
Club	<b>.22***</b>	<b>.11*</b>	<b>.14**</b>	.07	-.02	<b>.17**</b>	<b>.27***</b>	<b>-.12*</b>	<b>-.18**</b>			
TV	<b>-.21***</b>	<b>.11*</b>	<b>-.27***</b>	<b>-.29***</b>	.07	.01	<b>-.20***</b>	-.04	-.02	-.03		
Radio	<b>.14**</b>	<b>-.11*</b>	-.08	-.02	-.01	-.05	.03	.05	.05	.00	-.07	
Newspaper	<b>.35***</b>	<b>.31***</b>	<b>.26***</b>	<b>.15**</b>	.03	<b>.24***</b>	<b>.27***</b>	<b>.10*</b>	.00	.10	<b>-.10*</b>	.04

**Table 2**  
 Prediction of perceived deliberation by media use

	<i>r</i>	Final $\beta$	$R^2$ change
<b>Block1: Demographics</b>			.17***
Age	.13**	.01	
Education	.30***	.09	
Household income	.32***	.19***	
Sex(femaleness dummy)	-.17**	-.15**	
<b>Block2: Neighborhood relationship</b>			.11***
Neighborhood attachment	.29***	.23***	
Neighborhood involvement	.35***	.13*	
<b>Block3: Third places</b>			.01
Bar & restaurant	.10*	.05	
Neighborhood	.03	.04	
Club	.22***	.11*	
<b>Block4: Media use</b>			.06***
No of hours watched TV yesterday	-.21***	-.07	
Hours listened to radio yesterday	.14**	.14**	
No of days read paper last week	.35***	.18***	

Note: \* $p \leq .05$ , \*\* $p \leq .01$ , \*\*\* $p \leq .001$

Total  $R^2 = .35$ , adjusted  $R^2 = .33$ ,  $F(12, 327) = 14.83$ ,  $p \leq .001$

## 5. Write up of results

In the prediction of perceived deliberation, a four-block hierarchical multiple regression analysis was conducted. Multicollinearity tests using condition index and regression coefficient variance-decomposition matrix, tolerances and VIFs indicated that the analysis has no multicollinearity problem (all tolerances  $\geq .67$ , VIFs  $\leq 1.49$ ), and the analysis result indicates that 12 predictors explain 35.2% of the total variance of perceived deliberation ( $F(12, 327) = 14.83, p \leq .001$ ).

First, the demographics block, including age, education, household income, and sex, explains 17% of total variance of perceived deliberation ( $F(4, 335) = 17.21, p \leq .001$ ). Household income is a significantly positive ( $\beta = .19, p \leq .001$ ) unique predictor of perceived deliberation, and sex (female) is a significant negative unique predictor of perceived deliberation ( $\beta = -.15, p \leq .01$ ). As a result, as household income is higher perceived deliberation will increase, and men's perceived deliberation is higher than women's perceived deliberation, when all other predictors are controlled for.

Second, the neighborhood block, including the neighborhood attachment and neighborhood involvement scales, explains additional 11.4% of total variance of the perceived deliberation ( $F(2, 333) = 26.56, p \leq .001$ ). Neighborhood attachment ( $\beta = .23, p \leq .001$ ) and neighborhood

involvement ( $\beta = .13, p \leq .05$ ) are significant positive unique predictors of perceived deliberation. As a result, as neighborhood attachment increase and neighborhood involvement increase, perceived deliberation increases, when all other predictors are controlled for.

Third, the third places block, including bar and restaurant, neighborhood, and club scales, does not explain a significant additional amount of variance in perceived deliberation ( $F(3, 330) = 2.10, p = .1$ ). Thus, we do not examine the significance of any individual predictors in this block.

Fourth, the media use block, including number of hours watching TV, number of hours listening to radio, and number of days reading the newspaper, explains additional 5.5% of total variance of perceived deliberation ( $F(3, 327) = 9.18, p \leq .001$ ). Number of days reading the newspaper ( $\beta = .18, p \leq .001$ ) and number of hours listening to radio ( $\beta = .14, p \leq .01$ ) are significant positive unique predictors of perceived deliberation. That is, as people listen more to radio and read newspapers more frequently, perceived deliberation increases, when all other predictors are controlled for.