

**National Institute of Standards and Technology (NIST)
Information Technology Laboratory (ITL)
Computer Security Division (CSD)
Password Generation Study Post-Task Questionnaire**

About the Password Generation Study

1. How would you rate the experience of generating passwords to satisfy the password requirements?

a. “password requirement set 1”

1	2	3	4	5
Very Difficult	Difficult	Neutral	Easy	Very Easy

b. “password requirement set 2”

1	2	3	4	5
Very Difficult	Difficult	Neutral	Easy	Very Easy

2. How would you rate the strength (i.e., in protecting the account) of the password requirements?

a. “password requirement set 1”

1	2	3	4	5
Very Weak	Weak	Neutral	Strong	Very Strong

b. “password requirement set 2”

1	2	3	4	5
Very Weak	Weak	Neutral	Strong	Very Strong

3. For the password you selected for “account type 1,” please rate:

a. The strength (i.e., in protecting the account) of the password

1 Very Weak	2 Weak	3 Neutral	4 Strong	5 Very Strong
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b. The ease of remembering the password

1 Very Difficult	2 Difficult	3 Neutral	4 Easy	5 Very Easy
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c. The ease of typing the password

1 Very Difficult	2 Difficult	3 Neutral	4 Easy	5 Very Easy
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4. For the password you selected for “account type 2,” please rate:

a. The strength (i.e., in protecting the account) of the password

1 Very Weak	2 Weak	3 Neutral	4 Strong	5 Very Strong
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b. The ease of remembering the password

1 Very Difficult	2 Difficult	3 Neutral	4 Easy	5 Very Easy
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c. The ease of typing the password

1 Very Difficult	2 Difficult	3 Neutral	4 Easy	5 Very Easy
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5. For the password you selected for “account type 3,” please rate:

a. The strength (i.e., in protecting the account) of the password

1	2	3	4	5
Very Weak	Weak	Neutral	Strong	Very Strong

b. The ease of remembering the password

1	2	3	4	5
Very Difficult	Difficult	Neutral	Easy	Very Easy

c. The ease of typing the password

1	2	3	4	5
Very Difficult	Difficult	Neutral	Easy	Very Easy

6. For the password you selected for “account type 4,” please rate:

a. The strength (i.e., in protecting the account) of the password

1	2	3	4	5
Very Weak	Weak	Neutral	Strong	Very Strong

b. The ease of remembering the password

1	2	3	4	5
Very Difficult	Difficult	Neutral	Easy	Very Easy

c. The ease of typing the password

1	2	3	4	5
Very Difficult	Difficult	Neutral	Easy	Very Easy

7. For the password you selected for a desktop computer, please rate:

a. The strength (i.e., in protecting the account) of the password

1 Very Weak	2 Weak	3 Neutral	4 Strong	5 Very Strong
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b. The ease of remembering the password

1 Very Difficult	2 Difficult	3 Neutral	4 Easy	5 Very Easy
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c. The ease of typing the password

1 Very Difficult	2 Difficult	3 Neutral	4 Easy	5 Very Easy
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8. For the password you selected for a mobile computing device, please rate:

a. The strength (i.e., in protecting the account) of the password

1 Very Weak	2 Weak	3 Neutral	4 Strong	5 Very Strong
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b. The ease of remembering the password

1 Very Difficult	2 Difficult	3 Neutral	4 Easy	5 Very Easy
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c. The ease of typing the password

1 Very Difficult	2 Difficult	3 Neutral	4 Easy	5 Very Easy
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9. What, if any strategies, did you use to generate the passwords in this study?

About yourself and your experience with passwords

1. Gender:

- Male
- Female

2. Age: _____ (in years)

3. Highest education (degree/level attained):

- High school or equivalent
- Associate degree
- Bachelor’s degree
- Master’s degree (e.g. MS, MA, etc.)
- Doctoral degree (e.g. PhD)
- Professional degree (e.g. MD, JD, etc.)
- (Other), please specify _____

4. Occupation: _____

5. Your level of experience using computers:

- Novice
- Average
- Advanced
- Expert

6. Do you have **personal accounts in the categories listed below that require a **password**? If yes, enter the number of accounts in that category and select how often you use those accounts.**

	Number of accounts	Several times a day	About once a day	Several times a week	About once a week	Several times a month	Several times a year
Email		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personal computers requiring passwords		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mobile devices requiring passwords (e.g., smartphones, tablets)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Networks (e.g., Facebook, MySpace, Twitter)		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online Chat/Instant Messaging		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Banking online		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Bill payment online		0	0	0	0	0	0
Shopping online		0	0	0	0	0	0
Financial management online (e.g. investment, 401K)		0	0	0	0	0	0
Healthcare management online (e.g. health insurance, Medicare)		0	0	0	0	0	0
Classifieds/auctions online (e.g. Craigslist, ebay)		0	0	0	0	0	0
Entertainment online (e.g. music, videos/movies)		0	0	0	0	0	0
Games online		0	0	0	0	0	0
News online		0	0	0	0	0	0

If you have other personal accounts not listed above, please describe the nature of the account(s): _____

7. How often do you use the **same password** for **different personal accounts**?

- Never or almost never
- Less than half of the time
- About half of the time
- More than half of the time
- Always or almost always

8. Tell us about any overall **strategy** you use to manage your passwords for **different personal accounts**.

(An example of such strategy is to have 3 passwords with different security levels: a strong password for accounts with great importance to you; a medium-strength password for less important accounts; and a low-strength password for accounts that are more casual.)

9. What **strategies** do you use to create the passwords of your **personal accounts**? (check all that apply)

- Create from a password root, where a few characters are always the same (e.g., 2PwDRt&, PwDRt42%, or tXpwdRT@)
- Let system assign password
- Make minor change(s) to an existing password (e.g., %elvis1, #elvis2, or \$elvis3)
- Recycle old passwords (e.g., old passwords that are not in current password history)
- Use a common name, word, or phrase (e.g., Boston12)
- Use a meaningful or pronounceable mnemonic (e.g., 2beOrnOt@toBee from “to be or not to be”)

- Use a random combination of words, letters, or characters
- Use character repetitions (e.g. !!!AAAbbb999)
- Use existing passwords from other accounts
- Other –describe strategies generically. Do **not** provide an example of an actual password or enough information to guess your password. _____

10. How **important** are these **considerations** to you when you create the password of a **personal email account**?

	Not at all Important	Only a little Important	Somewhat Important	Very Important
Easy to enter/type	0	0	0	0
Easy to remember	0	0	0	0
Strong, i.e., hard to guess/crack	0	0	0	0
Synchronized with passwords for other accounts	0	0	0	0
Compliant with the password requirements	0	0	0	0

11. How do you **keep track** of the passwords of your **personal accounts**? (check all that apply)

- Memorize the passwords
- Let browser/computer auto-fill
- Use mnemonics, e.g. meaningful or pronounceable phrase
- Rely on hints provided by the computer
- Do not track, use “forgot password” feature
- Share with someone (e.g., a family member or friend)
- Write entire password down on paper and place in a non-locked location
- Write entire password down on paper and store securely in a locked location
- Write down on paper, but disguise in some way (e.g. only write down the common word without the special characters)
- Save in a document/file, protected with encryption or password
- Save in a document/file, not protected (i.e. without encryption or password)
- Use password management software
- Store in unencrypted electronic devices, e.g., USB key, PDA, cell phone, etc.
- Store in encrypted electronic devices, e.g. BlackBerry
- Other – please describe _____

12. In the past **6 months**, how much **frustration** have these **problems** with your personal accounts caused you?

	None	A little	Some	A lot
Forgetting your User name or ID	0	0	0	0
Forgetting your password	0	0	0	0
Forgetting your PIN	0	0	0	0
Forgetting which password goes with which account	0	0	0	0
Getting locked out of an account	0	0	0	0
Mistyping a password	0	0	0	0
Getting error messages when trying to change a password	0	0	0	0
Getting error messages when trying to recover a password	0	0	0	0
Dealing with slow or unhelpful system support	0	0	0	0
Valid password rejected for unclear reason	0	0	0	0
Other, please describe below	0	0	0	0

If "Other", describe problem(s): _____

13. In your opinion, how many characters long should personal account **passwords** be? Please give a whole number. _____

14. How do you feel about the **amount of effort** it takes you to **create and manage passwords** to do what you want to do online?

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