

# Appendix E.

## EmpathiSEr-P Scale Scoring Key

The EmpathiSEr-P scale assesses the extent to which software practitioners perceive themselves as empathetic towards other software practitioners during software development. It composed of multiple subscales representing different dimensions of empathy:

- Cognitive Empathy: The ability to understand the perspectives and emotions of other practitioners.
- Affective Empathy: The ability to emotionally relate to or feel with the other practitioners.
- Empathic Responses: Behavioural empathy or outward expression of empathy through actions, such as active listening or adapting communication based on needs of other practitioners.

Each item was rated on a 7-point Likert scale:

- 1 - Does not describe me at all
- 2 - Barely describes me
- 3 - Somewhat describes me
- 4 - Moderately describes me
- 5 - Generally describes me
- 6 - Mostly describes me
- 7 - Completely describes me

|   |  |                             |                     |                       |                         |                        |                     |                         |
|---|--|-----------------------------|---------------------|-----------------------|-------------------------|------------------------|---------------------|-------------------------|
| 1 | I make an effort to understand the work-related needs and concerns of co-workers, by considering how things look from their perspective. | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 2 | I find it difficult to remain flexible when co-workers face personal emergencies, especially if it affects scheduled tasks.              | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 3 | I feel uneasy during conflicts, disagreements, or tension among co-workers.  | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |

|    |  |                             |                     |                       |                         |                        |                     |                         |
|----|--|-----------------------------|---------------------|-----------------------|-------------------------|------------------------|---------------------|-------------------------|
| 4  | I tend to give feedback without considering how it might be perceived from my co-workers' perspective.   | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 5  | I try to understand the actions and emotions of co-workers.  | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 6  | During my interactions with co-workers, I am emotionally affected due to their emotional tension, stress, and frustration.                                   | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 7  | I do not actively consider co-workers' perspectives or work-related needs when developing software solutions.  | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 8  | When co-workers point out issues in my work, I usually focus on defending my choices rather than understanding their perspective.                            | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 9  | I take co-workers' perspectives into account when discussing different viewpoints during meetings, such as code reviews or design sessions.                  | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 10 | I tend to provide feedback without adjusting my tone or approach based on how it might affect co-workers.  | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 11 | I am emotionally sensitive to the emotional states of co-workers during high-pressure project situations, such as tight deadlines or significant challenges. | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 12 | When working in a team, I don't always make an effort to ensure everyone feels heard and understood.   | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 13 | I understand the technical and domain-specific challenges co-workers face by considering their context, including their individual strengths and weaknesses. | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 14 | I tend to make decisions without fully considering all relevant perspectives or all sides of a disagreement.   | Does not describe           | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |

|    |   |                             |                     |                       |                         |                        |                     |                         |
|----|---|-----------------------------|---------------------|-----------------------|-------------------------|------------------------|---------------------|-------------------------|
|    |   | me at all                   |                     |                       |                         |                        |                     |                         |
| 15 | I try to understand the concerns of co-workers about proposed solutions by taking their perspective into account. | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 16 | When assigning work, I do not consider co-workers' expertise, capacity, or capability.                            | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 17 | I pay attention to co-workers' work styles and communication preferences to better understand their perspective.  | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 18 | I don't adjust my communication style based on co-workers' roles or level of technical expertise.                 | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 19 | I clarify co-workers' doubts about requirements or domain knowledge by taking their perspective into account.     | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |
| 20 | I try to understand ethnic and cultural differences that influence the communication and behaviour of co-workers. | Does not describe me at all | Barely describes me | Somewhat describes me | Moderately describes me | Generally describes me | Mostly describes me | Completely describes me |

| Empathy Sub Scale  | Included Item Numbers          |
|--------------------|--------------------------------|
| Cognitive Empathy  | 1, 5, 7, 9, 13, 15, 17, 19, 20 |
| Affective Empathy  | 3, 6, 11                       |
| Empathic Responses | 2, 4, 8, 10, 12, 14, 16, 18    |

#### Scoring Method:

- Scoring was performed by summing all item scores within each subscale and for the total scale.
- Positively worded items are scored directly.

- Items that were negatively worded (i.e., those reflecting a lack of empathy) are reverse scored to ensure that higher scores consistently represented higher empathy.
  - **Negatively worded items:** 2, 4, 7, 8, 10, 12, 14, 16, 18

A higher total score on the EmpathiSEr-P indicates that the practitioner views themselves as more empathetic in their interactions with other practitioners.