| Question Number | Question                                                                 |
|-----------------|--------------------------------------------------------------------------|
| 1               | This ad shows situations where people are drinking an alcoholic beverage excessively, or otherwise encourages immoderate consumption. |
| 2               | This ad shows situations where people are drinking alcohol irresponsibly. |
| 3               | This ad suggests that being drunk or intoxicated is acceptable.         |
| 4               | This ad uses symbols, language, music, gestures, or cartoon characters that are associated with or are intended to appeal primarily to persons below legal purchase age. |
| 5               | This ad shows traditional heroes or current celebrities, such as entertainment figures and athletes, who appeal primarily to people below legal purchase age. |
| 6               | The ad associates performance success with drinking the alcohol product. |
| 7               | This ad conveys the message that drinking is linked to being more energetic or dynamic. |
| 8               | This ad conveys the message that alcohol improves femininity /masculinity, and/or improves the capacity to be more attractive to others. |
| 9               | This ad suggests that drinking leads to an exciting adventurous life.    |
| 10              | This ad suggests that drinking has a positive emotional benefit, such as reducing anxiety or depression. |
| 11              | This ad conveys the message that drinking leads to having a more independent/ individualistic or cool personality. |
| 12              | This ad suggests that drinking will help a person to relax or relieve stress. |
| 13              | This ad portrays the alcohol product as key to sexual success.           |
| 14              | This ad associates the alcohol product with removing social and/or sexual inhibitions. |
| 15              | This ad conveys a message that drinking is associated with being more popular or accepted. |
| 16              | This ad associates improvement of social status with drinking the alcohol product. |
| 17              | This ad suggests that drinking will help to alleviate boredom or loneliness. |
| 18              | This ad associates solving social, personal or physical problems with drinking the alcohol product. |
| 19              | This ad associates social, professional, mental, educational, athletic or financial success with drinking the alcohol product. |
| 20              | This ad shows drunk driving, or suggests that drunk driving is acceptable. |
| 21              | This ad shows or suggests the use of an alcohol product before or during activities requiring sobriety or a high degree of alertness or coordination, such as driving an automobile, operating machinery, boats, working in a hazardous situation, playing sports, etc. |
| 22              | This ad shows one or more people in a state of drunkenness.              |
| 23              | This ad suggests that it is acceptable for people to consume an alcoholic beverage to a point where they appear to lack control over their behavior, coordination, or speech. |
| 24              | This ad suggests drinking is associated with violent, aggressive, antisocial, and/or hazardous behavior. |
| 25              | This ad gives the impression that the alcohol product has special or unique qualities, or that it has curative or therapeutic benefits. |
| 26              | This ad makes scientifically unsupported claims about the effect of an alcohol product on people's health. |
| 27              | This ad refers to the alcohol content of the advertised product directly or indirectly. |
| 28              | This ad shows illegal activity.                                         |
| 29              | This ad misrepresents the alcohol product and is dishonest or untruthful.|
| 30              | The ad condones or trivializes excessive or irresponsible alcohol consumption. |
| 31              | The ad portrays abstinence or moderate alcohol consumption in a negative way. |
| 32              | The ad depicts or appears to be addressed to at-risk groups, such as pregnant women, women of childbearing age, people under legal purchase age, college students, ethnic minorities, alcoholics, or other vulnerable groups. |
| 33              | This ad presents alcohol as a stimulant, sedative or tranquilizer.       |
| 34              | This ad uses themes, images, symbols, or portrayals likely to be considered offensive, derogatory or demeaning. |
| 35              | This ad is in conflict with generally accepted principles concerning respect for human dignity and integrity. |
| 36              | How old do you think the youngest person in this ad is?                 |
| 37              | How many drinks do you estimate this person is likely to consume in the situation shown in the ad? |
| Question Set       | Questions                              |
|--------------------|----------------------------------------|
| Expert Consensus   | 1, 4, 9, 19, 21, 28, 32, 36, 37        |
| Most Often Violated| 6, 7, 8, 9, 11, 15, 16, 17, 19         |
| Random 1           | 3, 4, 9, 10, 18, 21, 25, 29, 36        |
| Random 2           | 2, 3, 4, 18, 20, 23, 26, 30, 36        |
| Random 3           | 6, 8, 10, 11, 13, 18, 19, 30, 33       |
| Random 4           | 3, 8, 11, 14, 19, 20, 28, 31, 35       |
| Random 5           | 3, 7, 14, 28, 29, 31, 32, 35, 37       |
| Random 6           | 7, 10, 14, 17, 19, 20, 21, 24, 25      |
| Random 7           | 7, 13, 15, 20, 23, 24, 27, 31, 34      |
| Random 8           | 2, 8, 9, 26, 27, 29, 30, 31, 33        |
| Random 9           | 2, 7, 10, 23, 26, 27, 34, 35, 37       |
| Random 10          | 2, 3, 11, 12, 13, 16, 19, 22, 23       |
| Random 11          | 1, 4, 10, 17, 20, 25, 27, 30, 34       |
| Random 12          | 3, 4, 8, 11, 15, 19, 20, 26, 29        |
| Random 13          | 7, 10, 16, 23, 25, 29, 30, 31, 36      |
| Random 14          | 5, 8, 11, 16, 17, 18, 28, 30, 35       |
| Random 15          | 1, 2, 3, 7, 8, 9, 17, 34, 35           |
| Random 16          | 1, 4, 7, 8, 20, 25, 26, 33, 36         |
| Random 17          | 10, 11, 14, 18, 19, 27, 33, 34, 35     |
| Random 18          | 1, 5, 11, 15, 18, 19, 22, 29, 37       |
| Random 19          | 2, 3, 17, 19, 23, 25, 26, 33, 37       |
| Random 20          | 3, 8, 13, 14, 23, 25, 28, 30, 35       |
| Random 21          | 2, 4, 13, 16, 19, 25, 30, 32, 35       |
| Random 22          | 3, 4, 16, 19, 21, 29, 31, 37           |
| Random 23          | 4, 5, 6, 7, 9, 12, 24, 28, 29          |
| Random 24          | 1, 2, 9, 12, 16, 23, 26, 28, 34        |
| Random 25          | 1, 2, 4, 9, 10, 12, 18, 21, 37         |
| Random 26          | 1, 13, 15, 17, 18, 21, 26, 32, 37      |
| Random 27          | 2, 3, 6, 10, 16, 21, 22, 25, 26        |
| Random 28          | 1, 4, 9, 11, 12, 16, 20, 27, 36        |
| Random 29          | 6, 8, 11, 13, 17, 18, 22, 30, 37       |
| Random 30          | 2, 8, 9, 11, 17, 23, 29, 31, 36        |
| Random 31          | 4, 9, 14, 15, 18, 20, 29, 31, 37       |
| Random 32          | 3, 13, 16, 18, 22, 23, 24, 25, 33      |
| Random 33          | 1, 7, 12, 18, 24, 30, 31, 36, 37       |
| Random 34          | 1, 5, 6, 21, 30, 31, 33, 34, 35        |
| Random 35          | 1, 8, 10, 12, 13, 14, 23, 26, 36       |
| Random 36          | 1, 2, 3, 4, 13, 16, 24, 28, 33         |
| Random 37          | 3, 11, 19, 20, 21, 22, 29, 34, 37      |
| Random 38          | 4, 8, 9, 13, 14, 17, 27, 28, 33        |
| Random 39          | 2, 3, 8, 15, 17, 23, 24, 29, 37        |
| Random 40          | 5, 6, 8, 14, 16, 27, 28, 31, 37        |
| Random 41          | 6, 8, 14, 20, 22, 23, 28, 33, 37       |
| Random 42          | 2, 6, 13, 14, 15, 18, 20, 25, 36       |
| Random 43          | 12, 14, 18, 19, 20, 24, 27, 29, 36     |
| Random 44          | 1, 2, 6, 12, 13, 22, 26, 33, 36        |
| Random 45          | 1, 2, 5, 7, 8, 16, 21, 29, 34          |
| Random 46          | 5, 13, 19, 22, 24, 28, 32, 34, 35      |
| Random 47          | 1, 4, 6, 7, 26, 27, 28, 31, 32         |
| Random 48          | 5, 8, 10, 17, 18, 25, 30, 32, 35       |
| Random 49          | 1, 4, 7, 9, 10, 17, 21, 23, 34         |
| Random 50          | 8, 15, 16, 24, 26, 27, 28, 31, 33      |
### Supplemental Table 3. Reliability and Validity of Potential AMART Question Sets

| Question Set          | Kappa | Sensitivity | Specificity | PPV  | NPV  |
|-----------------------|-------|-------------|-------------|------|------|
| Expert Consensus      | 0.92  | 0.97        | 1.0         | 1.0  | 0.88 |
| Most Often Violated   | 0.69  | 0.91        | 0.86        | 0.97 | 0.67 |
| Random 1              | 0.49  | 0.79        | 0.86        | 0.96 | 0.46 |
| Random 2              | 0.15  | 0.44        | 0.86        | 0.94 | 0.24 |
| Random 3              | 0.45  | 0.77        | 0.86        | 0.96 | 0.43 |
| Random 4              | 0.45  | 0.77        | 0.86        | 0.96 | 0.43 |
| Random 5              | 0.41  | 0.74        | 0.86        | 0.96 | 0.40 |
| Random 6              | 0.49  | 0.79        | 0.86        | 0.96 | 0.46 |
| Random 7              | 0.45  | 0.77        | 0.86        | 0.96 | 0.43 |
| Random 8              | 0.53  | 0.82        | 0.86        | 0.97 | 0.50 |
| Random 9              | 0.34  | 0.68        | 0.86        | 0.96 | 0.35 |
| Random 10             | 0.45  | 0.77        | 0.86        | 0.96 | 0.43 |
| Random 11             | 0.17  | 0.47        | 0.86        | 0.94 | 0.25 |
| Random 12             | 0.53  | 0.82        | 0.86        | 0.97 | 0.50 |
| Random 13             | 0.41  | 0.74        | 0.86        | 0.96 | 0.40 |
| Random 14             | 0.58  | 0.85        | 0.86        | 0.97 | 0.55 |
| Random 15             | 0.58  | 0.85        | 0.86        | 0.97 | 0.55 |
| Random 16             | 0.37  | 0.71        | 0.86        | 0.96 | 0.38 |
| Random 17             | 0.45  | 0.77        | 0.86        | 0.96 | 0.43 |
| Random 18             | 0.63  | 0.88        | 0.86        | 0.97 | 0.60 |
| Random 19             | 0.41  | 0.73        | 0.86        | 0.96 | 0.40 |
| Random 20             | 0.17  | 0.47        | 0.86        | 0.94 | 0.25 |
| Random 21             | 0.41  | 0.74        | 0.86        | 0.96 | 0.40 |
| Random 22             | 0.41  | 0.74        | 0.86        | 0.96 | 0.40 |
| Random 23             | 0.53  | 0.82        | 0.86        | 0.97 | 0.50 |
| Random 24             | 0.53  | 0.82        | 0.86        | 0.97 | 0.50 |
| Random 25             | 0.49  | 0.79        | 0.86        | 0.96 | 0.46 |
| Random 26             | 0.41  | 0.74        | 0.86        | 0.96 | 0.40 |
| Random 27             | 0.31  | 0.65        | 0.86        | 0.96 | 0.33 |
| Random 28             | 0.53  | 0.82        | 0.86        | 0.97 | 0.50 |
| Random 29             | 0.49  | 0.79        | 0.86        | 0.96 | 0.46 |
| Random 30             | 0.58  | 0.85        | 0.86        | 0.97 | 0.55 |
| Random 31             | 0.58  | 0.85        | 0.86        | 0.97 | 0.55 |
| Random 32             | 0.34  | 0.68        | 0.86        | 0.96 | 0.35 |
| Random 33             | 0.37  | 0.71        | 0.86        | 0.96 | 0.38 |
| Random 34             | 0.26  | 0.59        | 0.86        | 0.95 | 0.30 |
| Random 35             | 0.21  | 0.53        | 0.86        | 0.95 | 0.27 |
| Random 36             | 0.41  | 0.74        | 0.86        | 0.96 | 0.40 |
| Random 37             | 0.45  | 0.77        | 0.86        | 0.96 | 0.43 |
| Random 38             | 0.58  | 0.85        | 0.86        | 0.97 | 0.55 |
| Random 39             | 0.41  | 0.74        | 0.86        | 0.96 | 0.40 |
| Random 40             | 0.45  | 0.77        | 0.86        | 0.96 | 0.43 |
| Random 41             | 0.26  | 0.59        | 0.86        | 0.95 | 0.30 |
| Random 42             | 0.37  | 0.71        | 0.86        | 0.96 | 0.38 |
| Random 43             | 0.37  | 0.71        | 0.86        | 0.96 | 0.38 |
| Random 44             | 0.23  | 0.56        | 0.86        | 0.95 | 0.29 |
| Random 45             | 0.49  | 0.79        | 0.86        | 0.96 | 0.46 |
| Random 46             | 0.45  | 0.77        | 0.86        | 0.96 | 0.43 |
| Random 47             | 0.41  | 0.74        | 0.86        | 0.96 | 0.40 |
| Random 48             | 0.34  | 0.68        | 0.86        | 0.96 | 0.35 |
| Random 49             | 0.58  | 0.85        | 0.86        | 0.97 | 0.55 |
| Random 50             | 0.45  | 0.77        | 0.86        | 0.96 | 0.43 |