

Effective Presentation Media for Passenger Safety: Comprehension of Briefing Card Gestalt and Elements

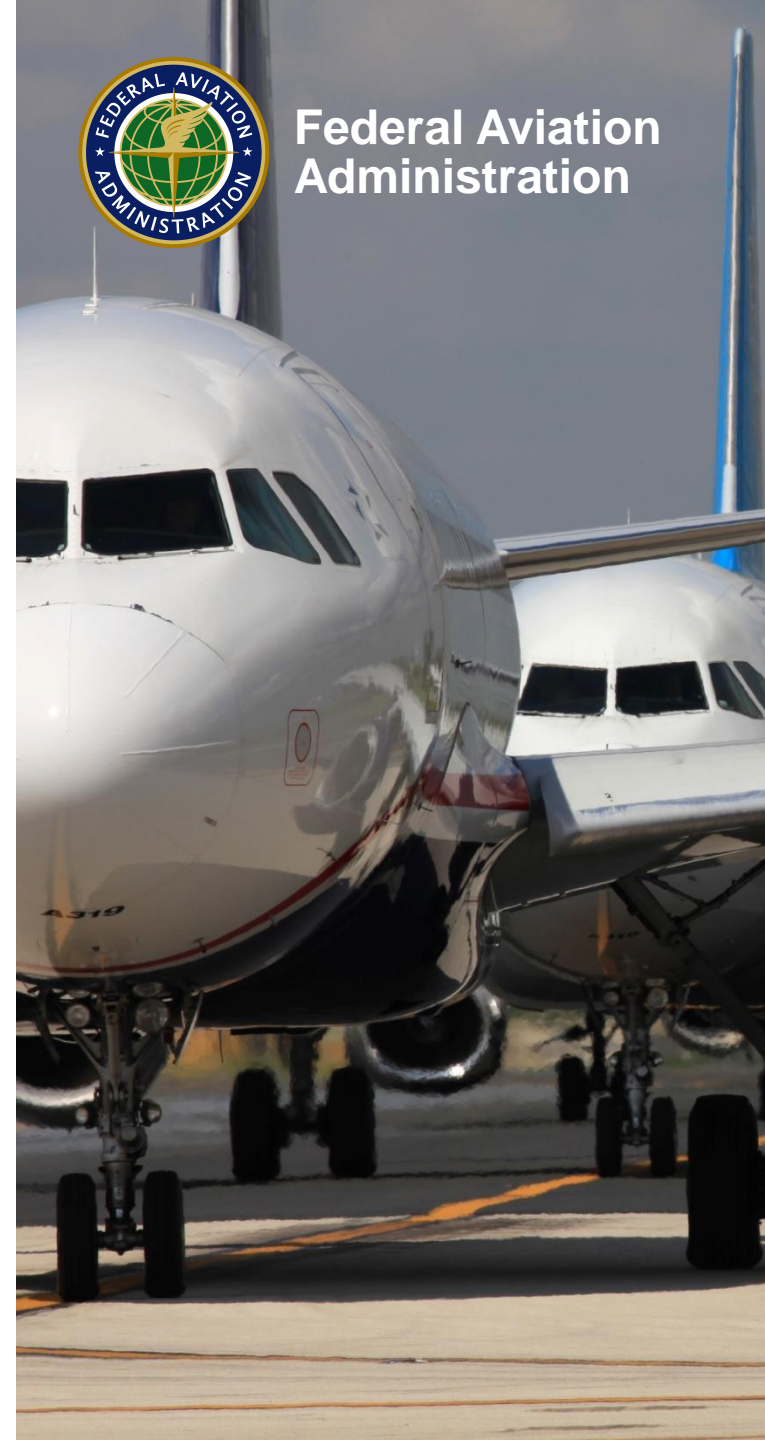
Presented to: 7th Triennial International Fire & Cabin
Safety Research Conference

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Date: December 2013



Federal Aviation
Administration



Research – Pictorials and Pictograms

- **Effective Presentation Media for Passenger Safety: Briefing Card Pictorials and Pictograms**
 - 2008
 - 785 Participants
 - 41 Pictograms
 - Effective Presentation Media for Passenger Safety I: Comprehension of Briefing Card Pictorials and Pictograms.
 - 15 of 41 cards



Research – Participants

– 785 Participants

- 72.1% 15-30 years, 21.3% 31-50 years, 6.6% 51+ years
- 358 (46%) Male, 427 (54%) Female

– Education

- High School Student, High School Diploma, Associates, Bachelors, Graduate

– Flight History

- Number of flights in previous 2 years
 - (0-2) (3-6) (7-12) (13+)

– Cabin Safety Expertise

- Based on education and professional status
 - Adult Expert, Adult Non-Expert, Student Non-Expert.



Research – Pictorials and Pictograms

- **Materials:**

- Test Booklet

- Informed consent form
 - 20 full-color pictorial/pictograms
 - Up to 3 questions per pictorial/pictogram

- **Procedure:**

- Informed consent

- Initial questions

- Test begins

- No going back

- 30 minutes



Research – Data Collection/Analysis

- Comprehension criteria established
 - 5 Judges
- Written responses transcribed to computer
- Participant responses compared to comprehension criteria
 - 3 Judges
 - Graphical Symbols Test Methods: ISO 9186



Research – Data Collection/Analysis

–ISO 9186:

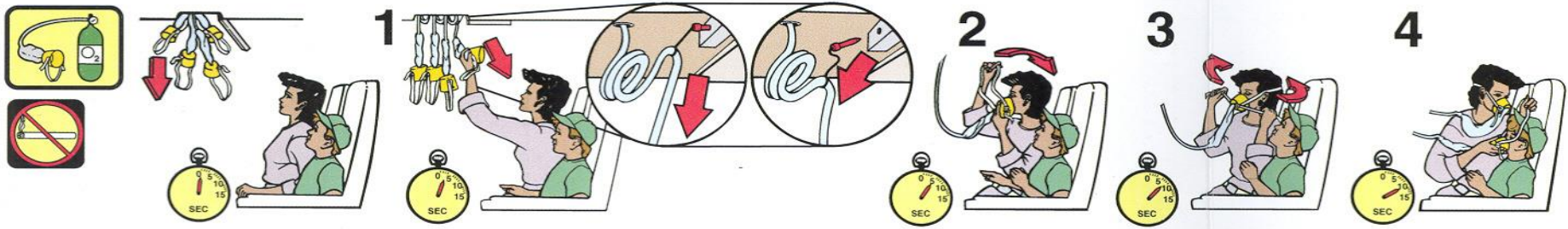
- Blank = response was blank
- None = response was “I do not know”
- Opposite = response contained words or ideas that were related but contradictory to the correct response
- Wrong = response was wrong
- Suspect = response contained words or ideas that were related but misconstrued
- Arguable = response contained words or ideas that indicated partial correctness but were ambiguous or unclear
- Likely = response was mostly correct but missing a key element(s)
- Certain = response was correct and complete



Research – Data Collection/Analysis

- Responses transformed
 - ISO 9186
- Quantitative analysis:
 - Overall comprehension scores
 - Descriptive statistics
 - Compare responses from demographic groups
 - Chi-Square comparisons



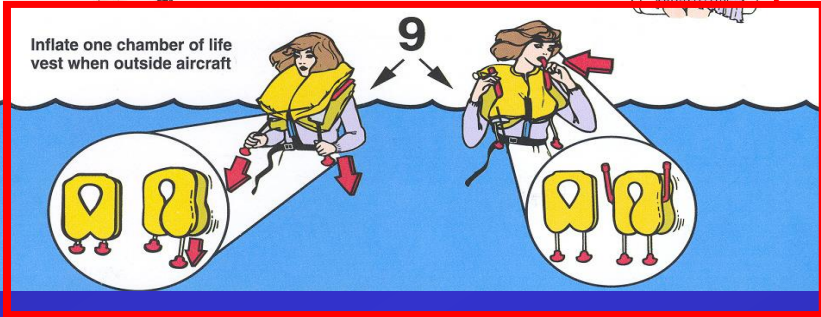


- Why do you think a clock is included in this pictogram?

- What do you think the clock is telling you?



A life vest is located under each seat.



- Segment 9 includes two illustrations.
- Fully describe each illustration.

- Why do you think there are two illustrations rather than one?



A.



B.



C.



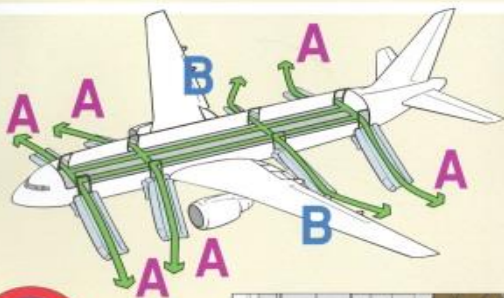
- Fully describe what you think each segment of this pictogram means.



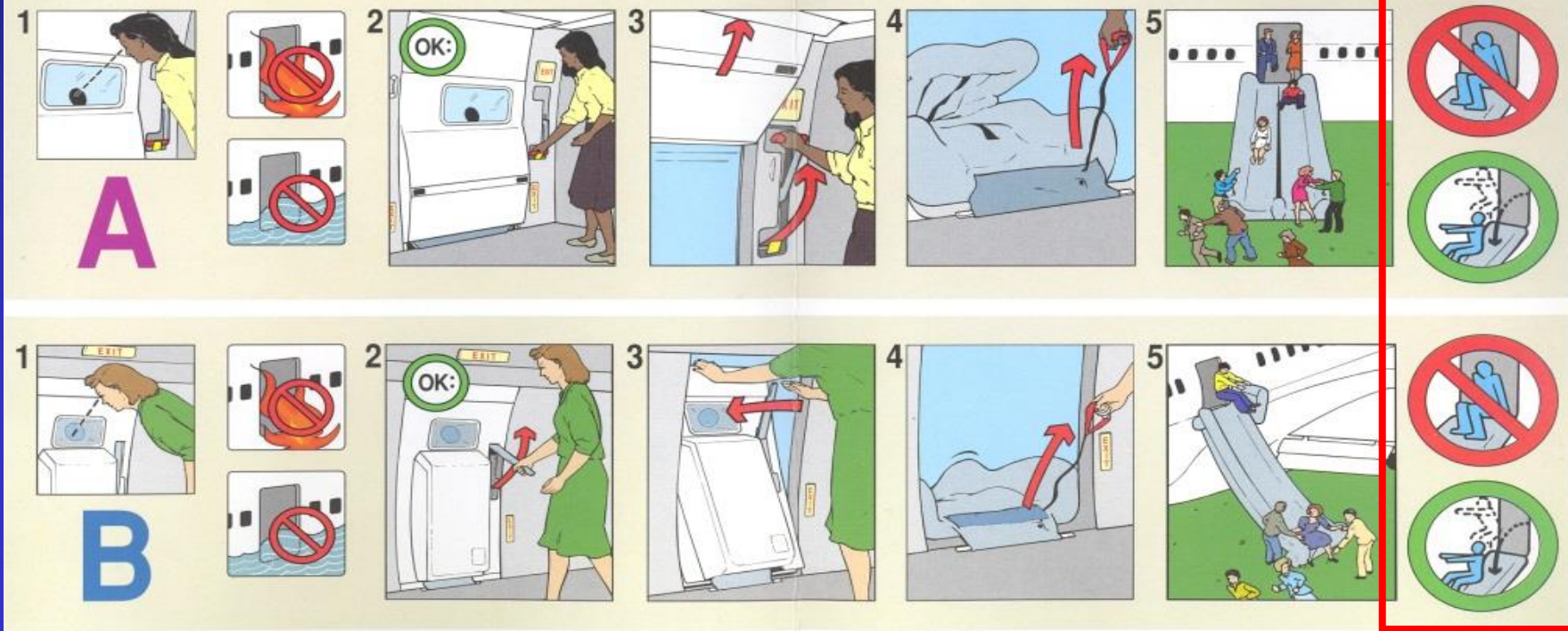
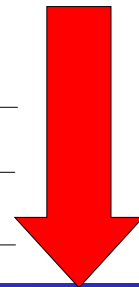
- Fully describe what you think segment 1 means.



- Describe what you think the difference is between these two pictograms.



- Study these pictograms.
- Now, describe exactly what you think this section means.



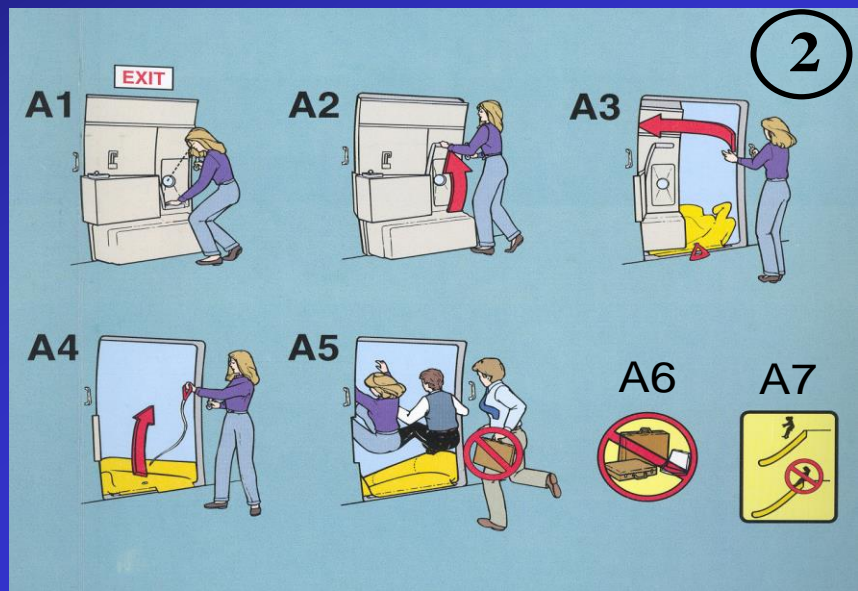
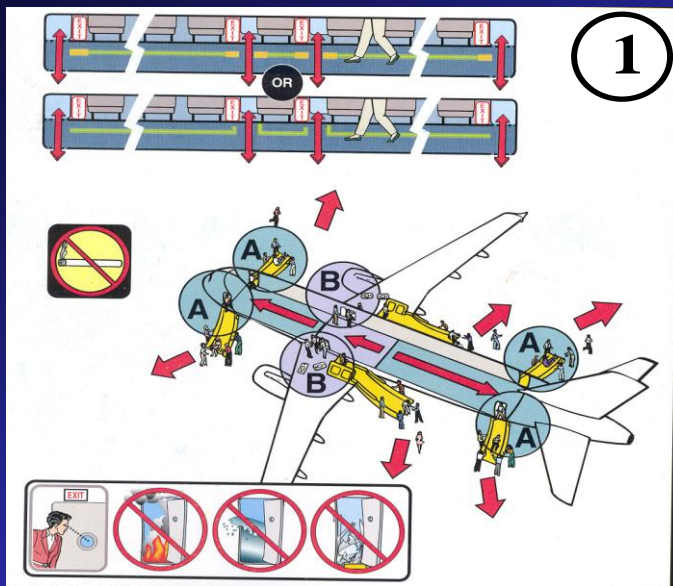
FLEX3





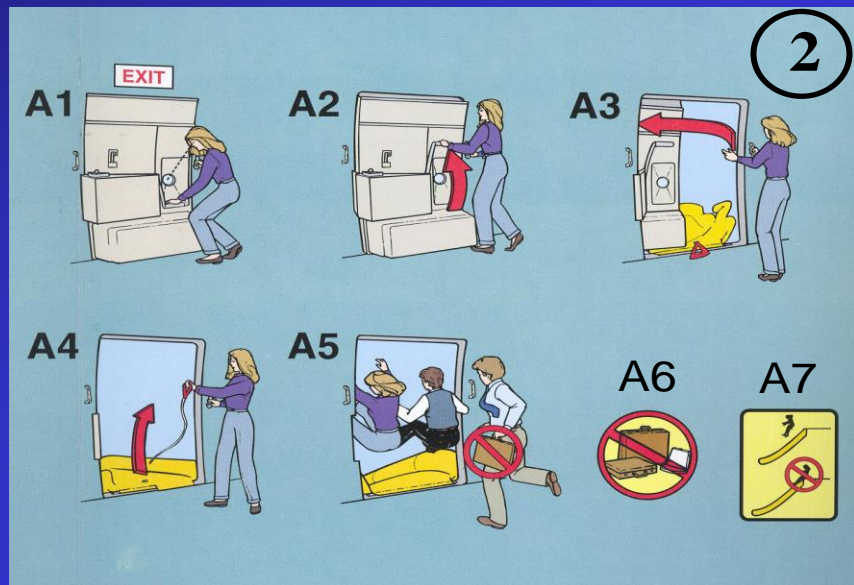
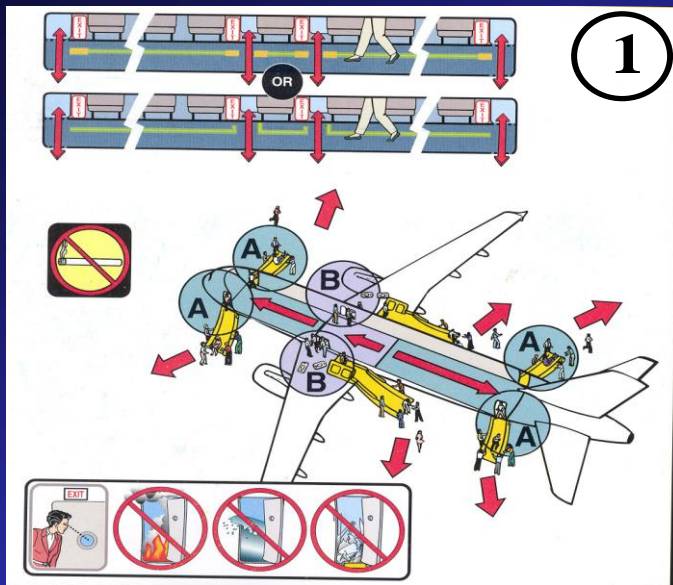
- Fully describe what symbols A and B mean.

- Why do you think symbols A and B are included in this pictogram?



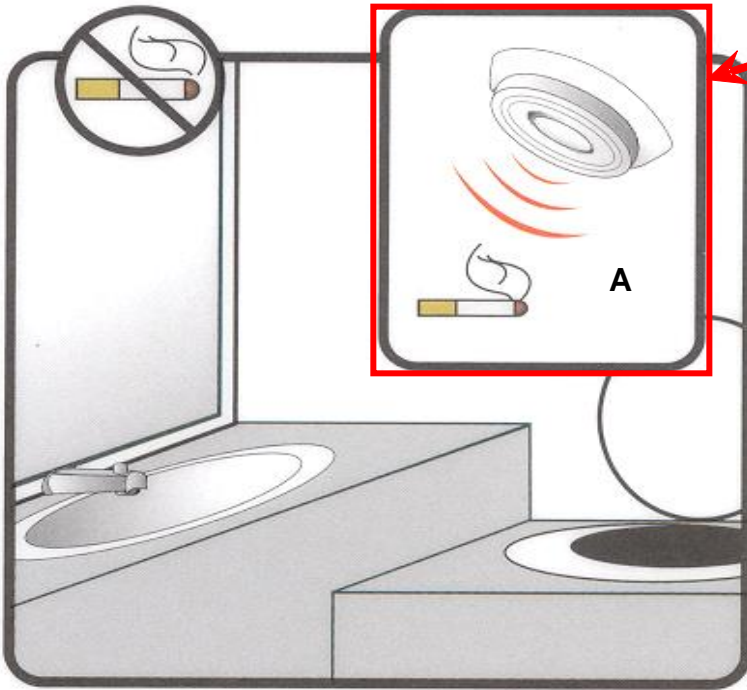
- These two pictograms are presented together on a briefing card. Study them both.
- What does pictogram 1 show?

- In pictogram 2, fully describe what segments A5 & A7 mean.

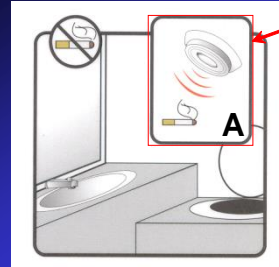


- These two pictograms are presented together on a briefing card. Study them both.
- In pictogram 2, fully describe what you think segments A1-A7 mean. Use pictogram 1 as a reference, if necessary.

- What do you think segment A of this pictogram indicates?



Response Cards



• What do you think segment A of this pictogram indicates?

Comprehension criterion: Smoking will set off alarm.

Category	Typical Responses
Certain	Smoking will set off an alarm.
Likely	There is a smoke detector in the bathroom.
Arguable	Smoke detector.
Suspect	There are smoke alarms through the plane.
Wrong	Smoke fumes going into a ventilator.

Overall Comprehension Score

Category	Frequency	%	Weight	Score
Certain	168	65.12	1.00	65.12
Likely	27	10.47	0.75	7.85
Arguable	37	14.34	0.50	7.17
Suspect	3	1.16	0.25	0.29
Wrong	22	8.53	0.00	0.00
None	1	0.39	0.00	0.00
Blank	3	-	-	0.00
Total	261	100.00		80.43





- Fully describe what you think segment 3 means?

- What does segment 4 indicate?

Response Cards

Comprehension criterion (a): Pull up on handle.

Category	Typical Responses
Certain	Pull up to inflate the escape slide.
Likely	I think it means you have to pull something and then step out
Arguable	Lift the door up so that you can step out side of it.
Suspect	Pull the door up
Wrong	How to exit the door

Comprehension Score

Category	Frequency	%	Weight	Score
Certain	47	37.90	1.00	37.90
Likely	2	1.61	0.75	1.21
Arguable	4	3.23	0.50	1.61
Suspect	10	8.06	0.25	2.02
Wrong	53	42.74	0.00	0.00
None	8	6.45	0.00	0.00
Blank	1	-	-	0.00
Total	125	100.00		42.74



- Fully describe what you think segment 3 means?

- What does segment 4 indicate?



Response Cards

Comprehension criterion (b): Jump or step out, do not sit.



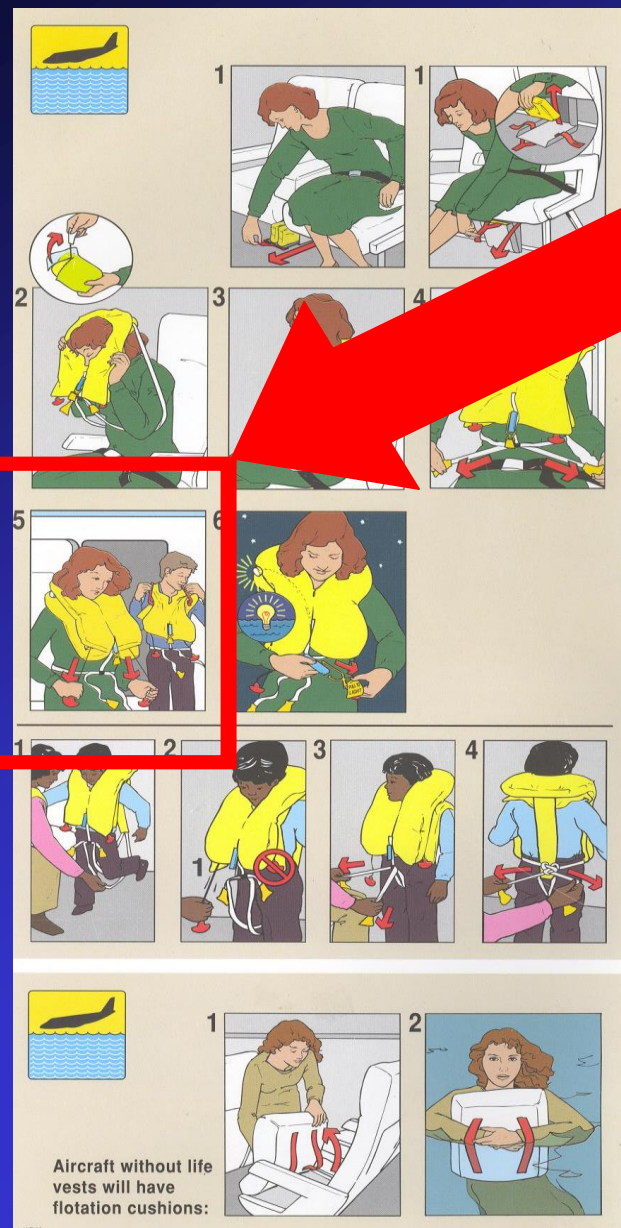
- Fully describe what you think segment 3 means?

- What does segment 4 indicate?

Category	Typical Responses
Certain	Jump out onto the slide. Don't sit and slide.
Overall Comprehension Score	
Arguable	How to slide.
Suspect	Step out when you fall on slide.
Wrong	How to get off flight.

Category	Count	Percentage	Score	Weighted Score
Arguable	56	44.09	0.50	22.05
Suspect	8	6.30	0.25	1.57
Wrong	7	5.51	0.00	0.00
Blank	1	-	-	0.00
Total	128	100.00		63.58
Arguable	27	21.26	0.50	10.63
Suspect	5	3.94	0.25	0.98
Wrong	10	7.87	0.00	0.00
Total	127	100.00		77.56





- What are the people doing in segment 5?
Fully describe the actions of each person.

- Where do you think they are performing these actions?



Response Cards

Comprehension criteria (a): Female, inflating vest
using pull tabs.

Category	Typical Responses
Certain	The woman is pulling on the tabs to inflate her life vest
Likely	The woman is inflating her vest
Arguable	Pulling down on red tabs
Suspect	Inflating life vest
Wrong	Putting on vest

Comprehension Score

Category	Frequency	%	Weight	Score
Certain	110	45.45	1.00	45.45
Likely	29	11.98	0.75	8.99
Arguable	13	5.37	0.50	2.69
Suspect	40	16.53	0.25	4.13
Wrong	50	20.66	0.00	0.00
Total	242	100.00		61.26

• What are the people doing in segment 5?
 Fully describe the actions of each person.

• Where do you think they are performing these actions?



Response Cards

Comprehension criteria (b): Male, blowing in tube to inflate vest.

What are the people doing in segment 5? Fully describe the actions of each person.

Where do you think they are performing these actions?

Category	Typical Responses
Certain	The male manually inflates his vest by blowing into the tube
Likely	The man is manually inflating his life vest
Arguable	The boy is inflating his flotation device
Suspect	Inflating flotation device
Wrong	Putting on their parachutes

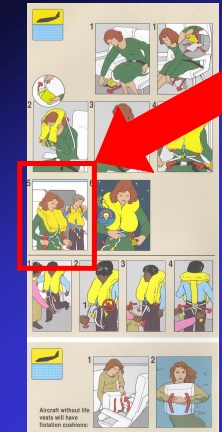
Comprehension Score

Category	Frequency	%	Weight	Score
Certain	65	30.37	1.00	30.37
Likely	18	8.41	0.75	6.31
Arguable	10	4.67	0.50	2.34
Suspect	32	14.95	0.25	3.74
Wrong	89	41.59	0.00	0.00
Blank	20	-	-	0.00
Total	234	100.00		42.76



Response Cards

Comprehension criteria (c): Outside the aircraft.



- What are the people doing in segment 5? Fully describe the actions of each person.
-
-
-
-
-
-
-
-
- Where do you think they are performing these actions?
-
-
-
-

Category	Typical Responses			
Certain	Outside the aircraft			
Likely	As they are stepping out of the aircraft			
Arguable	In the over wing exit			
Suspect	On the plane			
Opposite	In the airplane			
Wrong	They are about to crash on water			
Certain	28	11.52	1.00	11.52
Likely	6	2.47	0.75	1.85
Arguable	69	24.28	0.50	12.14
Suspect	111	45.68	0.25	11.42
Opposite	1	0.41	-1.00	-0.41
Wrong	38	15.64	0.00	0.00
Blank	2	-	-	0.00
Total	245	100.00		36.52
Opposite	111	48.68	-1.00	-48.68
Wrong	42	18.42	0.00	0.00
None	1	0.44	0.00	0.00
Blank	1	-	-	0.00
Total	229	100.00		-24.78



General Results

Comprehension Scores		
Response Card	Individual Question Scores	Pictogram Overall Score
1. O3	60.20/ 56.10/ -	59.57
2. FD1	59.02/ 65.85/ 51.45	50.74
3. FD3	61.26/ 42.76/ 24.78	36.52
4. L1	98.39/ 24.35/ 88.14	56.94
5. L2	80.43/ - / -	80.43
6. TLS1	55.46/ - / -	55.29
7. TLS2	55.19/ - / -	55.19
8. TLS3	55.28/ - / -	50.28
9. FLEX1	42.74/ 77.56/ -	63.58
10. FLEX3	55.24/ - / -	51.98
11. FLEX4	80.86/ 54.00/ -	59.77
12. FLEX5	52.86/ 65.12/ 72.80	63.45
13. FLEX6	46.88/ 51.30/ 48.23/ 58.33/ 47.08/ 81.71/ 59.48	49.80
Mean	59.10 %	56.43%

- **Standard Acceptance Criteria: ISO: 67%, ANSI: 85%**



General Results – Demographic comparisons

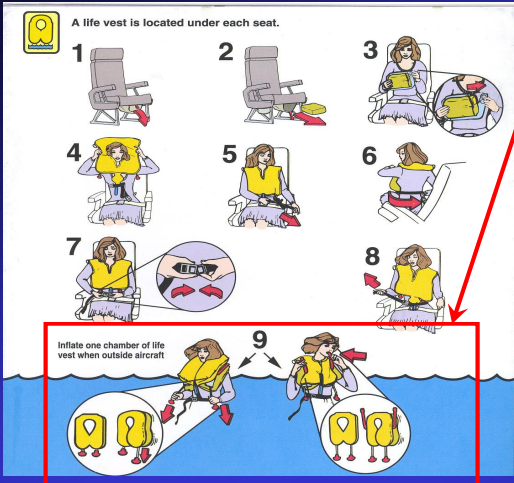
- No significant differences based on:
 - Age, Gender, or Education
- Multiple significant differences based on Flight History
- Multiple significant differences based on Cabin Safety Expertise

- **Terms:**

- Gestalt: Concept of wholeness, foreground-background relationships
- Cognitive load: Mental resources vs. task



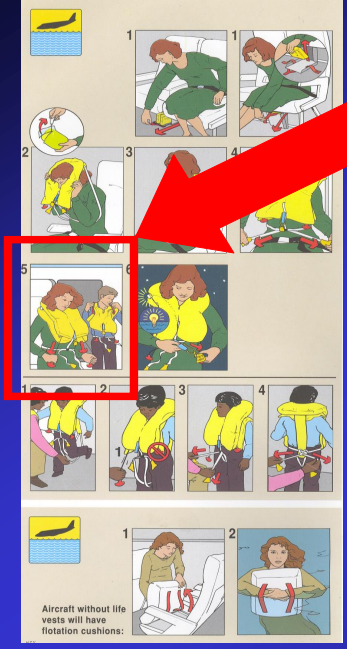
Group 1 (FD1, FD3)



- Segment 9 includes two illustrations.
 - Fully describe each illustration.
-
-
-
-
-
-
-
-
-
-
- Why do you think there are two illustrations rather than one?
-
-
-
-
-
-
-
-
-
-

- What are the people doing in segment 5? Fully describe the actions of each person.

- Where do you think they are performing these actions?



Group 1 (FD1, FD3)

- Same response criteria:
 - Pull tab to inflate
 - Blow in tube to inflate
 - If one does not work, use the other
- Different level of pictorial congestion
 - FD1: Spread out over bottom of the card (50.74%)
 - FD3: Confined to small area, middle of the card (36.52%)
- Lowest comprehension of both cards: The Why
 - FD1: 51.45%
 - FD3: 24.78%

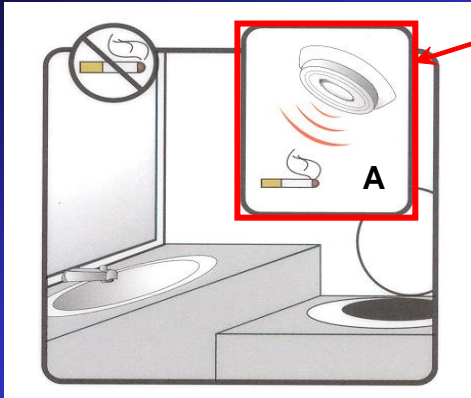


Group 2 (L1, L2)



- Fully describe what you think each segment of this pictogram means.
-
-
-
-
-
-
-
-
-
-

L1



- What do you think segment A of this pictogram indicates?
-
-
-
-
-
-
-
-
-
-

L2



Group 2 (L1, L2)

– Asked different questions

– Element familiarity

- L1: A. 98.39%
- L1: B. 24.38%
- L1: C. 88.14%
- L2: 80.43%

– Element comprehension greater than whole.



Group 3 (TLS1, TLS2, TLS3)

1

2

3

4

- Fully describe what you think segment 1 means.

- Describe what you think the difference is between these two pictograms.

- Fully describe what you think this pictogram means.



Group 3 (TLS1, TLS2, TLS3)

- Responses about familiar objects easier than aviation objects
- Responses and comprehension reflect audience/designer difference
 - TLS1: 55.46%
 - TLS2: 55.19%
 - TLS3: 55.28%
- Flight history and cabin safety expertise
 - Higher scores
- Element identification greater than whole
- Danger of dated icons
 - Furby, Gameboy, Cell phones, CD players...

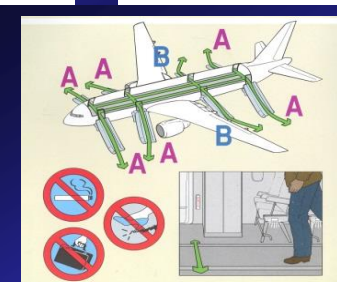


Group 4 (FLEX1, FLEX3)

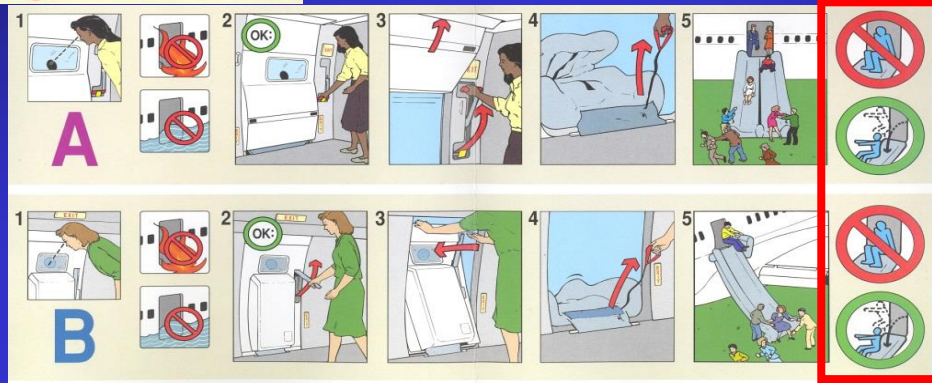


- Fully describe what you think segment 3 means?

- What does segment 4 indicate?



- Study these pictograms.
- Now, describe exactly what you think this section means.



Group 4 (FLEX1, FLEX3)

- Same response criteria
 - Jump to slide, do not sit
- Different levels of pictorial congestion and complexity
 - FLEX1: 2D, side perspective, little overlap, low congestion
 - 77.56%
 - FLEX3: 3D, front off-center perspective, overlap, high congestion
 - 55.24%

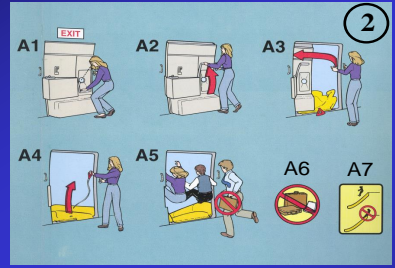
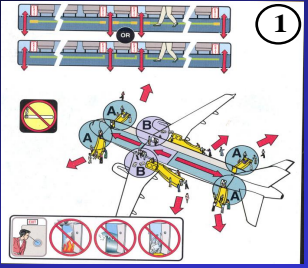


Group 5 (FLEX 4, FLEX5, FLEX6)



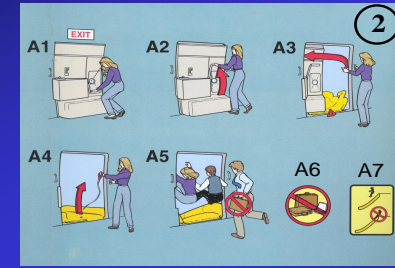
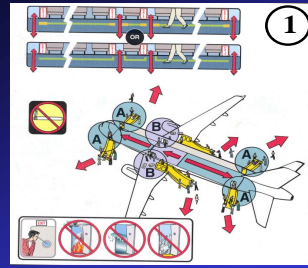
- Fully describe what symbols A and B mean.

- Why do you think symbols A and B are included in this pictogram?



- These two pictograms are presented together on a briefing card. Study them both.
- What does pictogram 1 show?

- In pictogram 2, fully describe what segments A5 & A7 mean.



- These two pictograms are presented together on a briefing card. Study them both.
- In pictogram 2, fully describe what you think segments A1-A7 mean. Use pictogram 1 as a reference, if necessary.



Group 5 (FLEX 4, FLEX5, FLEX6)

- Luggage and shoes
 - FLEX4: 80.86%
 - FLEX6: (f): 81.71%
- Same question, different question format
 - FLEX5: Asked to consider fewer items.
 - A5: 65.12%
 - A7: 72.80%
 - FLEX6: Asked to consider everything.
 - A5: 47.08%
 - A7: 59.48%
 - Overall Comp
 - FLEX5: 63.45%
 - FLEX6: 49.80%



General Conclusions

- **Multiple inferences**

- The simpler and more familiar the depiction, the better.
 - Often separate symbols are interpreted better than a whole.
 - Common, non-aviation specific symbols work better.
 - No-smoking, household-looking smoke detector, 2D briefcase/bag, Furby, Cell phones, etc...
- The less content on a card, the better.
 - Congested cards are harder to “read” and understand.
- Do simpler depictions of humans outperform more detailed depictions?
 - 2D outperformed 3D, but that could be due to clutter.
 - Stay tuned.



General Conclusions

- **Inferences (continued.)**
 - Cards are designed by cabin safety experts.
 - They are the best at understanding them.
 - Multiple single questions did not show preference for cabin safety/flight history (No smoking sign - 98.39%.)
 - Overall card understanding was usually dependent upon cabin safety expertise, flight history, or both.
 - » Exception: FLEX4
 - The current (as of this study) briefing cards are inadequate.
- **Recommendations for future cards:**
 - Keep it simple overall.
 - Less clutter on a single card.
 - Try to use common symbols from the non-aviation world.
 - Get feedback on new designs.
 - Preferably from non-frequent fliers or cabin safety novices.



The End

- **Questions?**
- **Thank you for your time and consideration.**

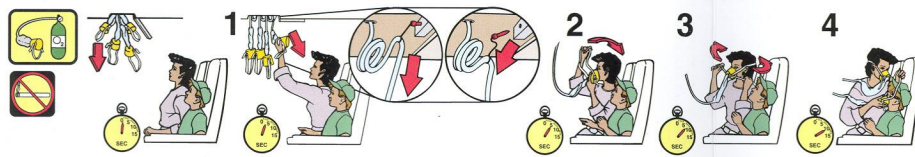


Response Cards

- **The following slides are the bulk of the response cards used in this report.**
- **They contain the questions, response criteria, and comprehension scores for each response card.**
- **They were moved to this position due to time constraints.**



Response Cards



• Why do you think a clock is included in this pictogram?

• What do you think the clock is telling you?

Comprehension criterion (a): Because there is little time before you pass out/to show urgency/to show how much time you have.

Category	Frequency	%	Weight	Score
Certain	67	26.27	1.00	26.27
Likely	40	15.69	0.75	11.76
Arguable	106	41.57	0.50	20.78
Suspect	14	5.49	0.25	1.37
Wrong	27	10.59	0.00	0.00
None	1	0.39	0.00	0.00
Total	255	100.00		60.20

Comprehension criterion (b): That you have less than 15 sec. to get the oxygen mask on you and your child.

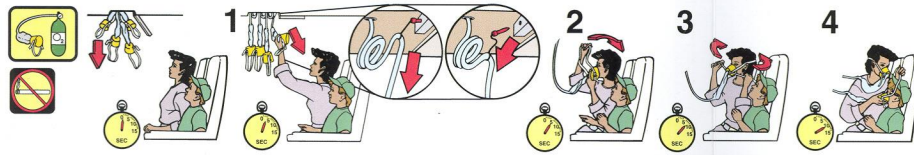
Category	Frequency	%	Weight	Score
Certain	27	10.63	1.00	10.63
Likely	73	28.74	0.75	21.56
Arguable	113	44.49	0.50	22.24
Suspect	17	6.69	0.25	1.67
Wrong	24	9.45	0.00	0.00
Total	254	100.00		56.10

Oxygen Equipment Usage (O3)

Category	Frequency	%	Weight	Score
Certain	30	11.72	1.00	11.72
Likely	89	34.77	0.75	26.07
Arguable	104	40.63	0.50	20.31
Suspect	15	5.86	0.25	1.46
Wrong	18	7.03	0.00	0.00
Blank	4	-	-	0.00
Total	260	100.00		59.57



Response Cards



• Why do you think a clock is included in this pictogram?

• What do you think the clock is telling you?

03

Comprehension criterion (a): Because there is little time before you pass out/to show urgency/to show how much time you have.

Category	Typical Type 1 Responses
Certain	To stress that time is important and that it should be done in under 10 seconds.
Likely	To show how quickly these actions should occur.
Arguable	To show how much time you have.
Suspect	How long it should take to do something.
Wrong	To show how much O2 you have.

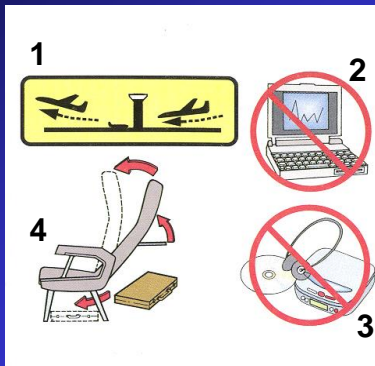
Comprehension criterion (b): That you have less than 15 sec. to get the oxygen mask on you and your child.

Category	Typical Type 1 Responses
Certain	The amount of time (seconds) that a passenger has to get oxygen during a decompression.
Likely	It should take 10 seconds to put masks on.
Arguable	What to do and how fast
Suspect	Elapsed time.
Wrong	The clock is telling you how quickly oxygen gets to you or how long until the oxygen begins to flow.

Oxygen Equipment Usage (O3)



Response Cards



- Fully describe what you think segment 1 means.

TLS1

Comprehension criterion: During take off and landing.

Category	Frequency	%	Weight	Score
Certain	110	43.14	1.00	43.14
Likely	7	2.75	0.75	2.06
Arguable	46	18.04	0.50	9.02
Suspect	11	4.31	0.25	1.08
Wrong	71	27.84	0.00	0.00
None	10	3.92	0.00	0.00
Blank	4	-	-	0.00
Total	259	100.00		55.29

Category	Typical Type 1 Responses
Certain	During take-offs and landings
Likely	Take-off and landing
Arguable	Landing, leaving
Suspect	Take off
Wrong	A very busy airport or a fast moving runway

Take off and Landing (TLS1)



Response Cards



- Describe what you think the difference is between these two pictograms.

TLS2

Take off and Landing (TLS2)

Comprehension criterion: Items on left may not be used at any time. Items on right may not be used during take off and landing.

Category	Frequency	%	Weight	Score
Certain	54	40.00	1.00	40.00
Likely	13	9.63	0.75	7.22
Arguable	20	14.81	0.50	7.41
Suspect	11	8.15	0.25	2.04
Opposite	2	1.48	-1.00	-1.48
Wrong	33	24.44	0.00	0.00
None	2	1.48	0.00	0.00
Total	135	100.00		55.19

Category	Typical Type 1 Responses
Certain	The first items aren't allowed at all during flight, the second items you can use during flight but not during take off and landing
Likely	Devices not permitted to be used during flight vs. devices not to be used during take off and landing.
Arguable	Certain electronics are not allowed at all but some are allowed after take off.
Suspect	First don't use items at all, second don't use during flight
Opposite	The first may never be used on a plane and the second can be used only during takeoff and landing
Wrong	Don't use / don't use close to the airport



Response Cards



- Fully describe what you think segment 3 means?

- What does segment 4 indicate?

FLEX1

Comprehension criterion (a): Pull up on handle.

Category	Frequency	%	Weight	Score
Certain	47	37.90	1.00	37.90
Likely	2	1.61	0.75	1.21
Arguable	4	3.23	0.50	1.61
Suspect	10	8.06	0.25	2.02
Wrong	53	42.74	0.00	0.00
None	8	6.45	0.00	0.00
Blank	1	-	-	0.00
Total	125	100.00		42.74

Comprehension criterion (b): Jump or step out, do not sit.

Category	Frequency	%	Weight	Score
Certain	80	62.99	1.00	62.99
Likely	5	3.94	0.75	2.95
Arguable	27	21.26	0.50	10.63
Suspect	5	3.94	0.25	0.98
Wrong	10	7.87	0.00	0.00
Total	127	100.00		77.56

Floor Level Exit (FLEX1)

Category	Frequency	%	Weight	Score
Certain	35	27.56	1.00	27.56
Likely	21	16.54	0.75	12.40
Arguable	56	44.09	0.50	22.05
Suspect	8	6.30	0.25	1.57
Wrong	7	5.51	0.00	0.00
Blank	1	-	-	0.00
Total	128	100.00		63.58



Response Cards



- Fully describe what you think segment 3 means?

- What does segment 4 indicate?

FLEX1

Floor Level Exit (FLEX1)

Comprehension criterion (a): Pull up on handle.

Category	Typical Type 1 Responses
Certain	Pull up to inflate the escape slide.
Likely	Before exiting through the window, pull on a handle
Arguable	Lift the door up so that you can step out side of it.
Suspect	Pull the door up
Wrong	Jump onto the slide

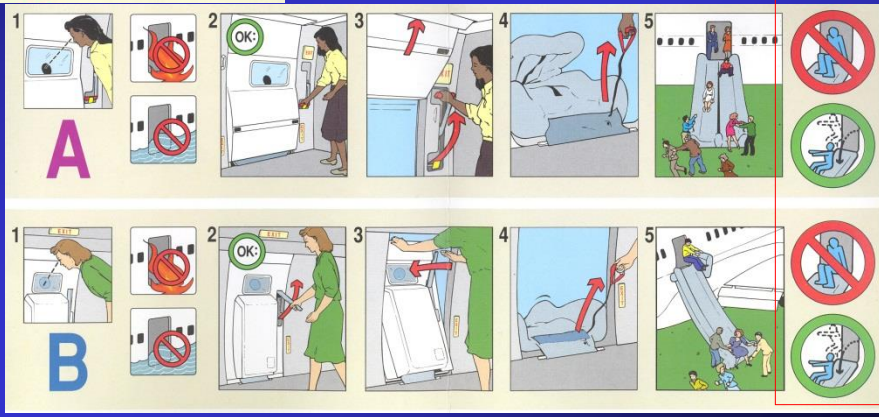
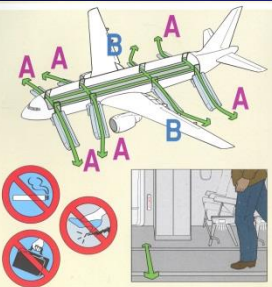
Comprehension criterion (b): Jump or step out, do not sit.

Category	Typical Type 1 Responses
Certain	Jump out onto the slide. Don't sit and slide.
Likely	Do not sit down.
Arguable	How to slide.
Suspect	Step out when you fall on slide.
Wrong	How to get off flight.



Response Cards

- Study these pictograms.
- Now, describe exactly what you think this section means.



Comprehension criterion: Jump to slide, do not sit.

Category	Frequency	%	Weight	Score
Certain	39	37.14	1.00	37.14
Likely	6	5.71	0.75	4.29
Arguable	25	23.81	0.50	11.90
Suspect	16	15.24	0.25	3.81
Opposite	2	1.90	-1.00	-1.90
Wrong	17	16.19	0.00	0.00
Blank	4	-	-	0.00
Total	109	100.00		55.24

Category	Typical Type 1 Responses
Certain	Do not just sit & slide, jump onto the slide.
Likely	No sitting, you must go.
Arguable	How to slide and how not to slide to safety.
Suspect	In case of emergency - exit here - slide down.
Opposite	To safely exit the plane on the slides, sit down upright with arms out front.
Wrong	Do not stand and slide.

Floor Level Exit (FLEX3)



Response Cards



- Fully describe what symbols A and B mean.

- Why do you think symbols A and B are included in this pictogram?

FLEX4

Comprehension criterion (a): No luggage/bags, No high heels/shoes.

Category	Frequency	%	Weight	Score
Certain	77	60.16	1.00	60.16
Likely	5	3.91	0.75	2.93
Arguable	45	35.16	0.50	17.58
Suspect	1	0.78	0.25	0.20
Total	128	100.00		80.86

Comprehension criterion (b): Bags could cause blockage/slow egress, High heels could puncture the slide.

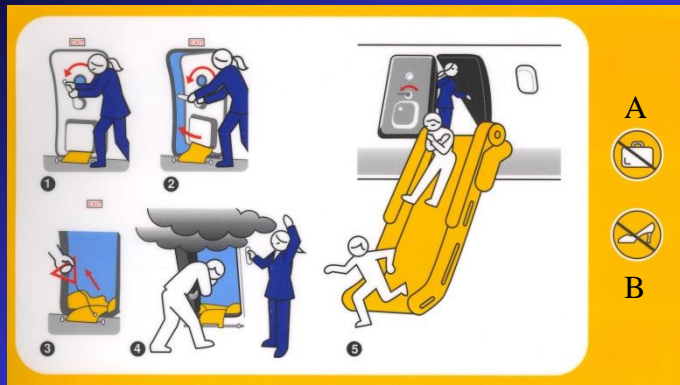
Category	Frequency	%	Weight	Score
Certain	14	11.20	1.00	11.20
Likely	25	20.00	0.75	15.00
Arguable	60	48.00	0.50	24.00
Suspect	19	15.20	0.25	3.80
Wrong	7	5.60	0.00	0.00
Total	125	100.00		54.00

Floor Level Exit (FLEX4)

Category	Frequency	%	Weight	Score
Certain	16	12.03	1.00	12.03
Likely	35	26.32	0.75	19.74
Arguable	68	51.13	0.50	25.56
Suspect	13	9.77	0.25	2.44
Wrong	1	0.75	0.00	0.00
Total	133	100.00		59.77



Response Cards



- Fully describe what symbols A and B mean.

- Why do you think symbols A and B are included in this pictogram?

FLEX4

Comprehension criterion (a): No luggage/bags, No high heels/shoes.

Category	Typical Type 1 Responses
Certain	No luggage, no high heels.
Likely	No luggage, no pointed objects.
Arguable	No bags allowed on slide.
Suspect	Taking no things with you. No clothing.

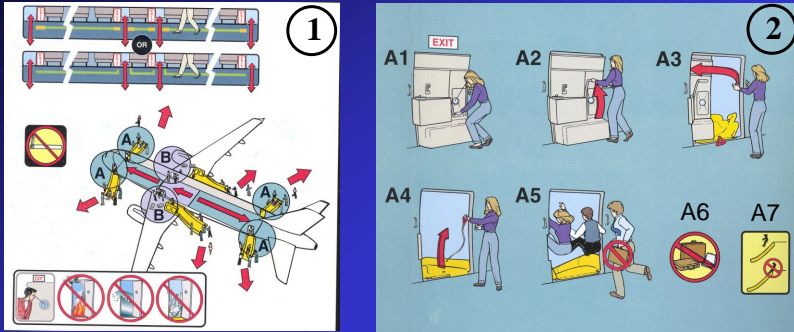
Comprehension criterion (b): Bags could cause blockage/slow egress, High heels could puncture the slide.

Category	Typical Type 1 Responses
Certain	So you can exit quickly and not pop a hole in the exit slide.
Likely	If you take time to get them you can be harmed.
Arguable	You are exiting on an inflatable device.
Suspect	They are part of the exit safety requirements.
Wrong	Because they are evacuating the plane.

Floor Level Exit (FLEX4)



Response Cards



- These two pictograms are presented together on a briefing card. Study them both.
- What does pictogram 1 show?

- In pictogram 2, fully describe what segments A5 & A7 mean.

FLEX5

Comprehension criterion (a): Floor markers/lighting. Shows exits. No smoking. Look outside, do not exit if fire, smoke, or debris.

Category	Frequency	%	Weight	Score
Certain	24	18.32	1.00	18.32
Likely	23	17.56	0.75	13.17
Arguable	32	24.43	0.50	12.21
Suspect	48	36.64	0.25	9.16
Wrong	4	3.05	0.00	0.00
Total	131	100.0		52.86

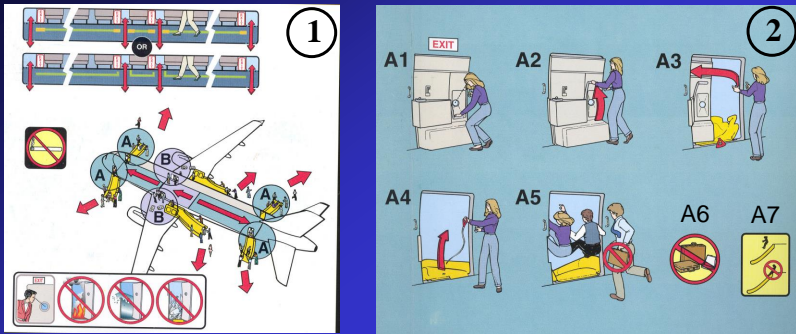
Comprehension criterion (b): A5- Jump on slide, no luggage.

Category	Frequency	%	Weight	Score
Certain	37	29.84	1.00	29.84
Likely	7	5.65	0.75	4.23
Arguable	76	61.29	0.50	30.65
Suspect	2	1.61	0.25	0.40
Wrong	2	1.61	0.00	0.00
Total	124	100.0		65.12

Floor Level Exit (FLEX5)



Response Cards



- These two pictograms are presented together on a briefing card. Study them both.
- What does pictogram 1 show?

- In pictogram 2, fully describe what segments A5 & A7 mean.

FLEX5

Comprehension criterion (c): A7- Jump do not sit.

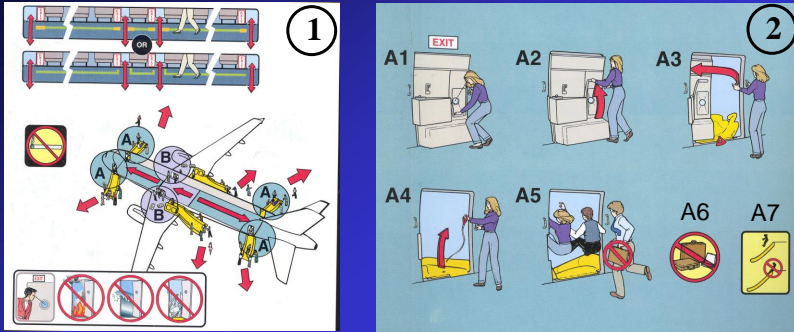
Category	Frequency	%	Weight	Score
Certain	74	59.20	1.00	59.20
Likely	9	7.20	0.75	5.40
Arguable	25	20.00	0.50	10.00
Suspect	7	5.60	0.25	1.40
Opposite	4	3.20	-1.00	-3.20
Wrong	6	4.80	0.00	0.00
Total	125	100.0		72.80

Floor Level Exit (FLEX5)

Category	Frequency	Percent	Weight	Score
Certain	17	12.88	1.00	12.88
Likely	53	40.15	0.75	30.11
Arguable	46	34.85	0.50	17.42
Suspect	16	12.12	0.25	3.03
Blank	3	-	-	0.00
Total	135	100.0		63.45



Response Cards



- These two pictograms are presented together on a briefing card. Study them both.
- What does pictogram 1 show?

- In pictogram 2, fully describe what segments A5 & A7 mean.

FLEX5

Comprehension criterion (a): Floor markers/lighting. Shows exits. No smoking. Look outside, do not exit if fire, smoke, or debris.

Category	Typical Type 1 Responses
Certain	Emergency lighting, how to exit, access condition, do not open if fire, water or debris
Likely	Emergency exits. Go to circled areas for exits. Don't open door if you see fire, water, or debris.
Arguable	Where the exits are and what not to do on the plane
Suspect	Exits and how to exit.
Wrong	Watch your step, walk outside green lines until you enter your seating area

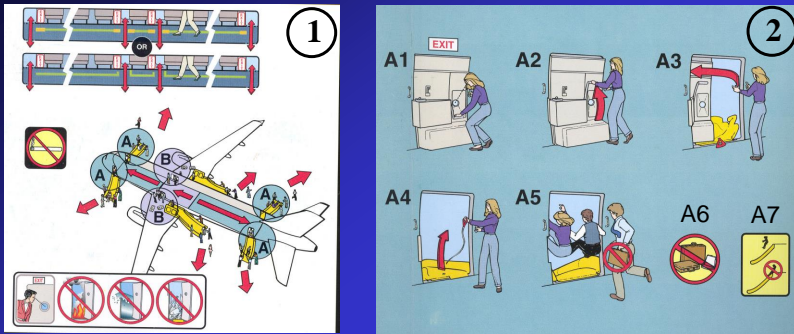
Comprehension criterion (b): A5- Jump on slide, no luggage.

Category	Typical Type 1 Responses
Certain	Jump out two at a time down the slide and don't bring luggage
Likely	A5 shows the proper way to board the emergency slide - feet first and no hand held items.
Arguable	A5 means do not take personal items or baggage with you.
Suspect	How to properly slide out if necessary and what to do and not to do
Wrong	You are not to slide immediately

Floor Level Exit (FLEX5)



Response Cards



- These two pictograms are presented together on a briefing card. Study them both.
- What does pictogram 1 show?

- In pictogram 2, fully describe what segments A5 & A7 mean.

FLEX5

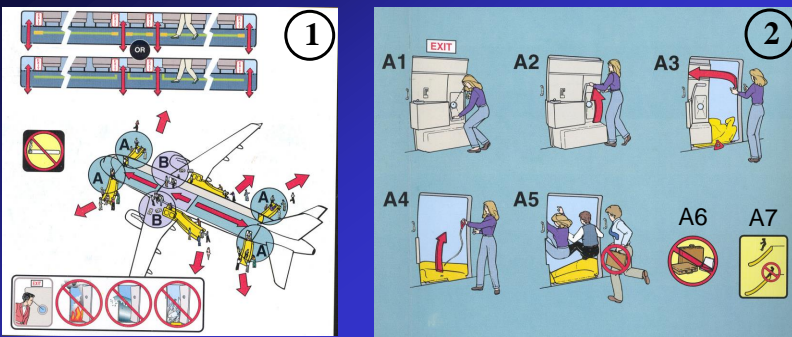
Comprehension criterion (c): A7- Jump do not sit.

Category	Typical Type 1 Responses
Certain	Jump out and do not sit to slide
Likely	Don't sit to jump
Arguable	Jump out do not push yourself out
Suspect	How to get on slide properly
Opposite	Don't jump on to the slide
Wrong	Don't take belongings, don't be scared

Floor Level Exit (FLEX5)



Response Cards



- These two pictograms are presented together on a briefing card. Study them both.
- In pictogram 2, fully describe what you think segments A1-A7 mean. Use pictogram 1 as a reference, if necessary.

FLEX6

Floor Level Exit (FLEX6)

Comprehension criteria (a): Look for fire, water, or debris.

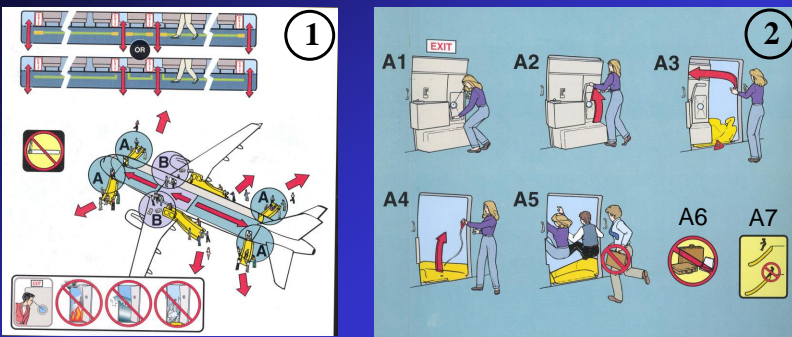
Category	Frequency	%	Weight	Score
Certain	34	30.36	1.00	30.36
Likely	10	8.93	0.75	6.70
Arguable	7	6.25	0.50	3.13
Suspect	30	26.79	0.25	6.70
Wrong	28	25.00	0.00	0.00
None	3	2.68	0.00	0.00
Blank	14	-	-	0.00
Total	126	100.0		46.88

Comprehension criteria (b): Pull up on handle to open.

Category	Frequency	%	Weight	Score
Certain	18	15.65	1.00	15.65
Likely	37	32.17	0.75	24.13
Arguable	4	3.48	0.50	1.74
Suspect	45	39.13	0.25	9.78
Wrong	9	7.83	0.00	0.00
None	2	1.74	0.00	0.00
Blank	9	-	-	0.00
Total	124	100.0		51.30



Response Cards



- These two pictograms are presented together on a briefing card. Study them both.
- In pictogram 2, fully describe what you think segments A1-A7 mean. Use pictogram 1 as a reference, if necessary.

FLEX6

Floor Level Exit (FLEX6)

Comprehension criteria (c): Push handle to open door.

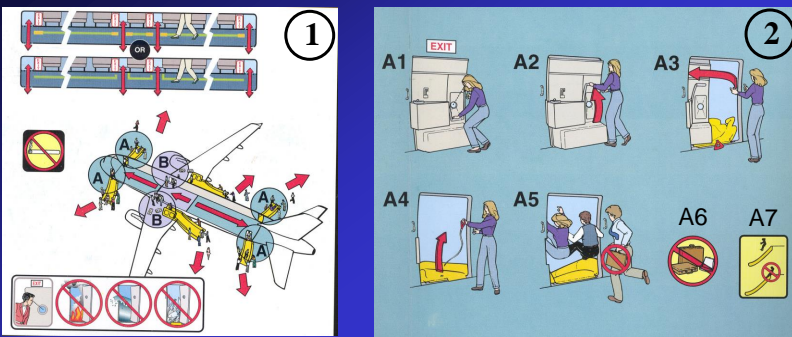
Category	Frequency	%	Weight	Score
Certain	6	5.31	1.00	5.31
Likely	43	38.05	0.75	28.54
Arguable	10	8.85	0.50	4.42
Suspect	45	39.82	0.25	9.96
Wrong	7	6.19	0.00	0.00
None	2	1.77	0.00	0.00
Blank	9	-	-	0.00
Total	122	100.0		48.23

Comprehension criteria (d): Pull handle to activate slide.

Category	Frequency	%	Weight	Score
Certain	43	37.72	1.00	37.72
Likely	14	12.28	0.75	9.21
Arguable	5	4.39	0.50	2.19
Suspect	42	36.84	0.25	9.21
Wrong	6	5.26	0.00	0.00
None	4	3.51	0.00	0.00
Blank	10	-	-	0.00
Total	124	100.0		58.33



Response Cards



- These two pictograms are presented together on a briefing card. Study them both.
- In pictogram 2, fully describe what you think segments A1-A7 mean. Use pictogram 1 as a reference, if necessary.

FLEX6

Floor Level Exit (FLEX6)

Comprehension criteria (e): Jump on slide. No carry ons.

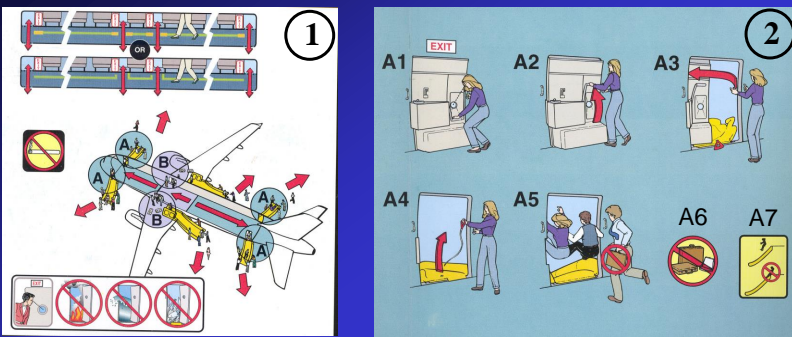
Category	Frequency	%	Weight	Score
Certain	22	18.33	1.00	18.33
Likely	10	8.33	0.75	6.25
Arguable	30	25.00	0.50	12.50
Suspect	48	40.00	0.25	10.00
Wrong	7	5.83	0.00	0.00
None	3	2.50	0.00	0.00
Blank	7	-	-	0.00
Total	127	100.0		47.08

Comprehension criteria (f): No carry ons.

Category	Frequency	%	Weight	Score
Certain	79	73.15	1.00	73.15
Likely	6	5.56	0.75	4.17
Arguable	1	0.93	0.50	0.46
Suspect	17	15.74	0.25	3.94
Wrong	3	2.78	0.00	0.00
None	2	1.85	0.00	0.00
Blank	17	-	-	0.00
Total	125	100.0		81.71



Response Cards



- These two pictograms are presented together on a briefing card. Study them both.
- In pictogram 2, fully describe what you think segments A1-A7 mean. Use pictogram 1 as a reference, if necessary.

FLEX6

Comprehension criteria (g): Jump do not sit.

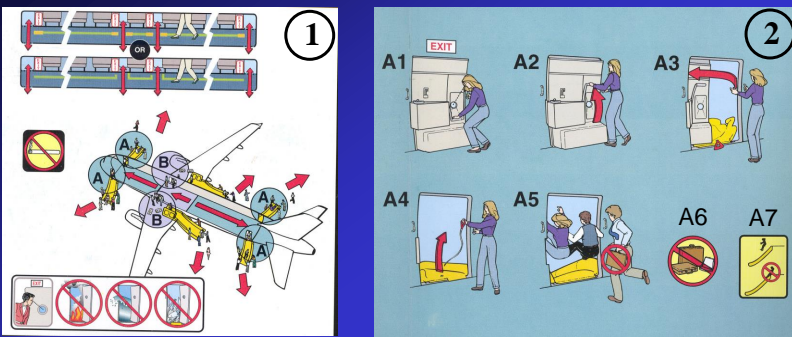
Category	Frequency	%	Weight	Score
Certain	52	44.83	1.00	44.83
Likely	4	3.45	0.75	2.59
Arguable	14	12.07	0.50	6.03
Suspect	36	31.03	0.25	7.76
Opposite	2	1.72	-1.00	-1.72
Wrong	5	4.31	0.00	0.00
None	3	2.59	0.00	0.00
Blank	13	-	-	0.00
Total	129	100.0		59.48

Floor Level Exit (FLEX6)

Category	Frequency	%	Weight	Score
Certain	13	10.16	1.00	10.16
Likely	33	25.78	0.75	19.34
Arguable	27	21.09	0.50	10.55
Suspect	50	39.06	0.25	9.77
Wrong	3	2.34	0.00	0.00
None	2	1.56	0.00	0.00
Blank	5	-	-	0.00
Total	133	100.0		49.80



Response Cards



- These two pictograms are presented together on a briefing card. Study them both.
- In pictogram 2, fully describe what you think segments A1-A7 mean. Use pictogram 1 as a reference, if necessary.

FLEX6

Floor Level Exit (FLEX6)

Comprehension criteria (a): Look for fire, water, or debris.

Category	Typical Type 1 Responses
Certain	Assess condition outside for fire, water, or debris
Likely	Look out the window.
Arguable	When opening exit door look outside-do not open door.
Suspect	Look what territory you are in.
Wrong	Look at the door.

Comprehension criteria (b): Pull up on handle to open.

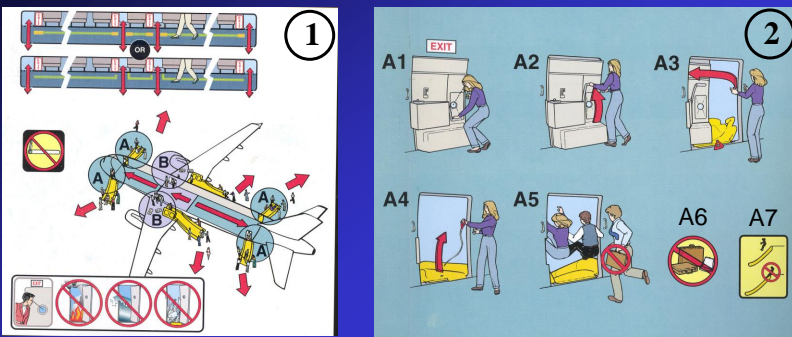
Category	Typical Type 1 Responses
Certain	Rotate handle in direction of arrow
Likely	Pull up on the lever
Arguable	Passenger is opening the exit
Suspect	How to open the exit initially
Wrong	Remove latch

Comprehension criteria (c): Push handle to open door.

Category	Typical Type 1 Responses
Certain	Give door flat handle push and grab emergency handle
Likely	Push door out
Arguable	Open the door to the left way
Suspect	Slide should inflate if the door gets open
Wrong	Getting the parachute out



Response Cards



- These two pictograms are presented together on a briefing card. Study them both.
- In pictogram 2, fully describe what you think segments A1-A7 mean. Use pictogram 1 as a reference, if necessary.

FLEX6

Floor Level Exit (FLEX6)

Comprehension criteria (d): Pull handle to activate slide.

Category	Typical Type 1 Responses
Certain	Pull on red handle to inflate the slide
Likely	Pull red handle
Arguable	Inflate slide
Suspect	Slide is inflating
Wrong	Pulling yellow thing

Comprehension criteria (e): Jump on slide. No carry ons.

Category	Typical Type 1 Responses
Certain	Exit by jumping on slide and do not bring anything.
Likely	Slide down the slide, leave belongings behind
Arguable	Jump out
Suspect	Exit plane on slide
Wrong	Jump out to fall

Comprehension criteria (f): No carry ons

Category	Typical Type 1 Responses
Certain	No luggage on slide - don't bring baggage off plane
Likely	No briefcases
Arguable	When exiting the plane onto the yellow slide do not carry bags or lit cigarettes
Suspect	What is not allowed
Wrong	Struggle to get out

