A Appendices

A.1 Generated Dialog Example

Speaker	Utterance	Dialog Act
usr	i am looking for a restaurant which is in the centre area.	inform_type
sys	Do you have a preference on the food and pricerange?	ask_type
usr	i would like the swedish food. i don't care about the pricerange.	inform_type
sys	I am sorry, but there are no restaurants matching your request. Is there anything else I can help you with?	nomatch_result
usr	what about chinese food?	inform_type_change
sys	charlie chan is a chinese restaurant on the centre side of town. It's in the cheap price range. Is there anything else I can help you with?	present_result
usr	are there any other options?	anything_else
sys	jinling noodle bar is a chinese restaurant on the centre side of town. It's in the moderate price range. Is there anything else I can help you with?	present_result
usr	can you help me to make a reservation on 15:15?	make_reservation
sys	Could you please tell me how many people and what day you would like for the reservation?	ask_reservation_info
usr	can you help me to make a reservation for 5 people on monday?	make_reservation
sys	I have booked the reservation for you. And you reference number is ABC.	booking_success
usr	thank you for helping me! goodbye	goodbye

Figure 6: Generated dialog example

A.2 Human Evaluation Interface

Please read this instruction you begin the task. You will receive a goal describing a specific restaurant. You need ask your partner to help you find a restaurant matching the goal

Tips:

Please type in appropriate responses based on the goal, for example,

- Provide specified restaurant type, e.g. area, etc.
 Ask for information about the recommended restaurant, e.g. phone number, etc.
 Provide reservation information, e.g. number of people, etc.
 Ask if there is a different restaurant.
 Normal chat. (e.g. thank you, goodbye, ... etc)

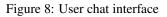
Please follow the goal literally and DO NOT change the exact word (e.g. changing "moderate" to "mid priced" is not allowed) and DO NOT deviate from the task (e.g. asking restaurant information in a place not provided in the goal is not allowed). Make sure you finish your goal before exiting the task, otherwise you MAY NOT get the payment.)

	l agree
Submit	

Figure 7: Task instructions for human evaluation

Live	Chat
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Live Chat	
Communicator role task description:	Instructions: Hello, welcome to the information center, I can help you find a restaurant, provide you restaurant information and make reservations for you. How may I help you today?
Goals:	USER: hi how are you?
You are looking for a restaurant . The restaurant should serve chinese food. The restaurant should be in the south area. Make sure you get the address . Tips:	Agent: Do you have a preference on the food, area and pricerange?
Please type in appropriate responses based on the goal, for example,	
 Provide specified restaurant type, e.g. area, etc. Ask for information about the recommended restaurant, e.g. phone number, etc. Provide reservation information, e.g. number of people, etc. Ask if there is a different restaurant. 	
 Normal chat. (e.g. thank you, goodbye, etc) 	
	Please enter here Send



	POST-TASK SURVEY
Goals:	
	1. What do you like or dislike about the system?
	2. Did the system solve your problem?
You are looking for a restaurant. The restaurant should serve	O Yes
chinese food. The restaurant should be in the south area. Make	O No
sure you get the address.	 Partially Solved 3.On a scale of 1-5, how satisfied are you with the system's performance? (5 means the best)
Tips:	 S.On a scale of 1-5, now satisfied are you with the system's performance? (5 means the best) 5
	04
	03
Please type in appropriate responses based on the goal, for	02
example,	01
	4. How efficient do you think the system is in solving your problem? (5 means the highest score for efficiency)
 Provide specified restaurant type, e.g. area, etc. 	05
 Ask for information about the recommended restaurant, e.g. 	0 4
	03
phone number, etc.	0 2
Provide reservation information, e.g. number of people, etc.	0 1
 Ask if there is a different restaurant. 	5. how natural do you think the system's response is? (5 means the highest score for human-likeness)
 Normal chat. (e.g. thank you, goodbye, etc) 	• 5
	03
Please follow the goal literally and DO NOT change the exact	 2 1 6. To what degree do you think the system is following rules when it responds? (5 means the system completely follows rules)
	 I to a not degree do you think the system is following rules when it responds? (5 means the system completely follows rules) 5
word (e.g. changing 'moderate' to 'mid priced' is not allowed) and	0 4
DO NOT deviate from the task (e.g. asking restaurant information	03
in a place not provided in the goal is not allowed.). Make sure you	02
finish your goal before exiting the task, otherwise you MAY NOT	01
get the payment.)	
	Submit

Figure 9: User survey interface