|  |  |  |
| --- | --- | --- |
| **Supp 2.** Categorisation matrix used for deductive content analysis. Responses that were common but did not align with known concepts were included in their own codes. | | |
| Code | Explanation |  |
| *Motivations* | *(Motivated by…)* | *Reference* |
| Help Wildlife Generally | helping wildlife *without* a geographic reference | (Dean et al., 2018; Domroese and Johnson, 2017; Geoghegan et al., 2016; Haywood et al., 2016; Martin et al., 2016a, 2016b; Haywood, 2014) |
| Help a specific geographic area | helping wildlife *with* a geographic reference |
| Contribute to science | helping/contributing to science |
| Meet people / for fun | social benefits e.g. meeting people, conversations etc |
| Learn something new | adding to personal knowledge or increasing understanding |
| Spend time outdoors | “getting outside” or similar |
| Exercise | physical activity associated with the project |
| Share knowledge with others | teaching and sharing what they know with other participants or friends/family |
| Promoted by others | other people telling/suggesting they get involved |
| Develop new skills | gaining new skills generally |
| Career development | gaining skills that will specifically help with a future career |
| *General Barriers* | *(Dissuaded by…)* | *Reference* |
| Feedback | poor, late or slow feedback, no acknowledgement of role played | (Dean et al., 2018; Carballo-Cárdenas and Tobi, 2016; Geoghegan et al., 2016; Thiel et al., 2014) |
| Communication | too many emails, no two-way communications inaccessible organisers |
| Training | feeling unprepared, not knowing what they’re doing etc |
| Output | incomprehensible reports, no evidence that they played a role |
| **Table 2.** Continued |  |  |
| Dis-organised | a project with poor organisation |  |
| No progression | a lack of opportunity to develop within the project |
| Dissatisfied motivations | motivations for participation no longer feeling satisfied |
| Personal circumstance | lack of spare time, money, poor health etc |
| Doing activity alone | lack of opportunity to meet new people |
| Under appreciated | feeling like the participant gets minimal returns for their input |
| *Mobile Phone Related Barriers* | *(Dissuaded by…)* | *Reference* |
| Stable platform | digital platforms that are overly complicated or not reliable | (Ganzevoort et al., 2017; Brammer et al., 2016; Land-Zandstra et al., 2016; Martin et al., 2016a, 2016b; Roy et al., 2012) |
| No internet / reception | lack of internet or mobile phone access on site |
| Device elsewhere | not having their mobile phone with them |
| Species ID | not knowing species on site and feelings of inadequacy |
| Unnecessary use | feeling forced to use digital tools instead of pen and paper |
| Concerns over data security | not knowing whether their data or personal information is stored safely |