Using collective intelligence to identify barriers to teaching 12–19 year olds about the ocean in Europe - DTU Orbit (14/08/2019)

Since the degradation of the marine environment is strongly linked to human activities, having citizens who appreciate the ocean's influence on them and their influence on the ocean is important. Research has shown that citizens have a limited understanding of the ocean and it is this lack of ocean literacy that needs to change. This study maps the European landscape of barriers to teaching 12–19 year olds about the ocean, through the application of Collective Intelligence, a facilitation and problem solving methodology. The paper presents a metaanalysis of the 657 barriers to teaching about the ocean, highlighting how these barriers are interconnected and influence one another in a European Influence Map. The influence map shows 8 themes: Awareness and Perceived knowledge; Policies and Strategies; Engagement, formal education sector; the Ocean itself; Collaboration; Connections between humans and the ocean and the Blue Economy, having the greatest influence and impact on marine education. “Awareness and Perceived knowledge” in Stage 1, exerts the highest level of overall influence in teaching 12–19 year olds about the ocean. This map and study serves as a roadmap for policy makers to implement mobilisation actions that could mitigate the barriers to teaching about the ocean. Examples of such actions include free marine education learning resources such as e-books, virtual laboratories or hands-on experiments. Thus, supporting educators in taking on the challenge of helping our youth realise that the ocean supports life on Earth is essential for education, the marine and human well-being.