Participants were presented with a series of statements and asked to rate how well they agreed with them.

Responses were predominantly positive. In total:

72% were positive;

20% were neutral;

8% were negative.

Feelings about the events

There is evidence that people living in Haverfordwest felt less positive about the events than those living further away and that males felt less positive than non-males.

Attendance at art workshops or the river of lights procession appears to be associated with increased positivity.

Changing relationships with art

Analysis shows that attendance at more than ten events is connected to greater engagement with art.

Attendance at artists' talks or festival week events coincides with artistic development.

Attendance at seminars or the river of lights procession appears to be associated with negative responses in this section.

These findings should be treated with caution due to limitations of the sampling frame and issues with missing data. Alternative explanatory variables could lead to different conclusions.

Free text responses were also predominantly positive, though a significant proportion of respondents felt that the project could have reached further.

Analysis shows that the statements rated can be split into four underlying concepts. These can be summarised as: feelings about the events; changes in Haverfordwest; changing relationships with art; and the power of art.

Responses to statements regarding the events and the power of art were most positive (87%).

Changes in Haverfordwest

There is some evidence that younger people feel more positive about changes in Haverfordwest.

People who started attending events earlier also appear to be more positive.

Attendance at various events seems to be connected to greater positivity. Specifically: go and see visits; big map and big models workshops; art workshops; and possibly films.

The power of art

There is evidence to suggest that positivity in this section increases with the number of events attended and that attendance at the river of lights procession or festival week events might be associated with less positive responses.

These effects are greater for male respondents. However, male respondents are generally less positive.

Respondents from Pembrokeshire are less positive than those from further afield.

1. Introduction

The process

A questionnaire was sent to people who attended Confluence events over the course of the project. Participants' views were gathered through their agreement or disagreement with a series of statements about the events, Haverfordwest and art. In addition to these statements, the questionnaire included: demograhic questions; questions about the extent of the participants' involvement; and opportunities for the participants to provide free text responses.

It was hoped that answers to the questions about type and number of events attended and demographic could be used to explain differences in the responses to the statements. This was achieved to some extent but there appear to be explanations that were not captured in the questionnaire. The results of the analysis must be treated with added caution due to certain restrictions of the data that was gathered.

This report will first examine the issues encountered, then the analyses will be discussed alongside factors that affect the reliability of the results. Finally, desired levels of involvement in future events, counts of the ratings of the statements and free text responses will be presented.

Limitations

There are certain limitations to the conclusions that can be drawn from this study. Primarily, it may not be appropriate to extend the conclusions drawn from the opinions of people who attended events to those that did not. People who did not attend may have different characteristics to those that did and so, if they had attended events, they may not have had the same reactions to them. Similarly, as response to the questionnaire was voluntary, people who did not respond may have different characteristics to those that did.

The majority of responses were on the two or three most positive options of a five-point scale and so there is little scope for identifying and explaining different levels of positivity. Conversely, the sample of negative responses is very small and so there is little opportunity to explain those.

As this was an exploratory analysis, there are likely to be factors which could explain variation in the responses but which were not accounted for in the questionnaire. If these had been included, it is likely that the apparent strength of the effects that were found would be different. An extra difficulty comes from attempting to measure change. Ideally, this would be done with two studies, one before the change and one after. This was not possible and so certain compromises have been made.

2. Data Issues

Sampling frame

Two respondents don't appear to have attended any events. As the survey was designed to study the views of attendees, these have been excluded from the analysis.

Missing data

17 respondents answered the demographic questions but did not rate their agreement with any of the statements. These responses were excluded from the analyses as there was nothing to analyse.

Four respondents omitted ratings for one or more of the statements. As these responses were mostly complete, the gaps were filled with average ratings, matched to responses to similar questions.

The sample of non-binary gender responses was too small to be used. These responses were grouped with "prefer not to say" and unanswered gender questions.

Some respondents had trouble supplying their date of birth.

- 18 respondents entered dates in 2018. One of these helpfully supplied the year in one of the
 free text boxes, alongside a comment about a problem with the calendar. Unfortunately, the
 rest cannot be used.
- One respondent entered a date in 2015 as date of birth and a date in the 1970s as gender. It
 is assumed that the date entered in response to the gender question is the true date of
 birth.
- A small number of respondents entered birth dates in 2011 and 2012. It is possible that these are genuinely children's opinions (supplied by adults). However, considering the topics covered, the known issues and the range of other birth dates (1938-1995), it seems likely that these entries are erroneous. They have been treated as missing birth dates.

Unfortunately, there wasn't time to develop an appropriate imputation method for the missing dates of birth. Various techniques were trialled but none proved satisfactory as they all clearly introduced bias. Techniques tested include mean substitution, regression and stochastic regression.

In most cases, analysis of the responses with dates of birth did not show that age had a significant effect on opinions. Therefore, it was possible to analyse the full dataset without considering date of birth.

Sample size

In total, there were 119 responses to the questionnaire. After excluding those responses that were from people who did not attend the events or that did not include ratings for the statements, the number for analysis was 100.

3. Grouping the statements

The statements were presented in three groups. A factor analysis was used to check that those in each group were all measuring the same underlying concept. This analysis also allows us to combine the statements in each group into a single measure of that underlying concept.

The analysis showed that the group of statements relating to art should be split into two but that the statements in each of the other two groups fitted together well. The final four underlying concepts can be described as: feelings about the events; changes in Haverfordwest; changing relationships with art; and the power of art.

Various tests confirmed that the data were suitable for such an analysis. The only concern was regarding the sample size. Traditional guidelines suggest that a larger sample is needed in order to obtain reliable results but there have been studies that show that this concern is relieved by other qualities of the data, such as high communalities and well-defined concepts. Communalities can be thought of as the amount of variance from each statement that is explained by the model. They are satisfactorily high. Well-defined concepts are indicated by a reasonable number of statements fitting into each group. The concepts here are all well-defined, except perhaps the "power of art" concept which only includes two statements.

Feelings about the events

Though all the statements about the events contributed to the same measure, "The events were accessible" contributed notably less than the other statements. This suggests that respondents'

feelings about the accessibility of the events was slightly different to their general level of positivity about the events.

The statement that contributed most to this measure was, "I would recommend events like these to others". This can be interpreted as the statement which is most closely aligned to the underlying concept.

Final contribution of each statement

The events were of a high standard	90%
The events were well organised	82%
The events were accessible	68%
I enjoyed the events	86%
I would attend more events like these	92%
I would recommend events like these to others	94%

Changes in Haverfordwest

Contributions to the measure of feelings about changes in Haverfordwest were broadly similar. The lowest contribution to this measure was from the statement, "Haverfordwest has changed for the better in the last 4 years" and the highest was from, "I feel more hopeful about the future of Haverfordwest than I was 4 years ago".

Final contribution of each statement

I feel more connected to Haverfordwest than I did 4 years ago	81%
I feel more able to influence the future development of Haverfordwest than I did 4	l years ago 85%
Haverfordwest has changed for the better in the last 4 years	77%
I feel more hopeful about the future of Haverfordwest than I was 4 years ago	89%
I feel more inclined to spend time in Haverfordwest than I did 4 years ago	85%

Changing relationships with art

The measure of how respondents' relationships with art had changed also contained no statement with a notably high or low contribution. The lowest was from, "My understanding of what art can be has broadened in the last 4 years" and the highest was from, "I feel more influenced by art than I did 4 years ago".

Final contribution of each statement

My understanding of what art can be has broadened in the last 4 years	81%
I feel more influenced by art than I did 4 years ago	92%
I have become more involved in art over the last 4 years	83%
I have become more aware of different art forms than I was 4 years ago	87%
My enjoyment of art has increased in the last 4 years	91%

The power of art

The measure of respondents' feelings about the power of art only had two contributing statements. These were equally weighted and well-aligned to the underlying concept.

Final contribution of each statement

Art improves my wellbeing	87%
Art and artists have a part to play in regeneration	87%

4. Modelling the responses

General linear models were used to test the relationships between the demographic questions, the type and number of events attended and the ratings in each of the four categories. The aggregated measures described above were used for modeling opinions as they provide a better data type for the process. In the descriptions of the models below they will be related back to the original five-point scales, from "strongly disagree" to "strongly agree".

The positivity scale

• •				
1	2	3	4	5
strongly disagree	disagree	neither agree nor	agree	strongly agree
		disagree		

The underlying assumptions for fitting these models were sufficiently satisfied and the effects found were statistically significant. This means that the models are valid and the effects are large enough to justify inclusion. However, none of the models explain a great deal of the variation in the opinions gathered. This may be partly due to the difficulties in measurement mentioned in the introduction - the large number of responses across a short range of positive ratings and the small sample of negative responses - but it is highly likely that there are other explanations for the ratings, which were not captured in the questionnaire. If additional information was gathered to explain differences in the responses, the effects found in the existing data may be rendered insignificant. Therefore, it is important to treat the conclusions drawn here with caution. They represent a clue as to what might be happening, not solid evidence.

It is not possible to attribute a causal effect to any of the associations found here. For example, where it appears that attendance at greater numbers of events is associated with a greater belief in the power of art, it cannot be concluded that the events fostered this belief. It may be that the belief led people to attend more events.

Feelings about the events

The information in the final model explained 36% of the variability in feelings about the events. On average, males and people from Haverfordwest were more negative about events than others. People who attended art workshops, walks or the river of lights procession were more positive.

The average level of positivity for non-males who were not from Haverfordwest and did not attend art workshops, walks or the river of lights procession was equivalent to a response slightly more positive than "agree" to each of the events-related statements.

The effect of being male on average reduces positivity by the equivalent of half a step, to a point between "agree" and "neither agree nor disagree". The effect of being from Haverfordwest is similar but slightly smaller. Being male and from Haverfordwest magnifies these effects, so that a male from Haverfordwest, when compared to a non-male from further afield with the same event attendance, is on average just over a step and a half lower on the positivity scale.

Attendance at the river of lights procession is associated with an average increase in positivity equivalent to just over half a step. The average increase due to attending walks is equivalent to just under one whole step. Respondents who went on walks and the procession display positivity similar to those that attended the procession but no walks.

Attendance at art workshops has little effect on the opinions of non-males from further afield but when combined with being male or being from Haverfordwest the positive effect outweighs the negative. It almost makes up for the magnified negativity related to being male and from Haverfordwest.

Changes in Haverfordwest

Changes in Haverfordwest was the most difficult category to model as date of birth appears to have an effect on opinions. As discussed earlier, a satisfactory method for imputing the missing dates of birth was not found. The following details relate to a model which excludes the responses with missing dates of birth. This is far from ideal but preferable to the inflated effects that were observed in the versions with imputation. The model explains 37% of the variation in opinions.

The characteristics associated with greater positivity on this topic were: later dates of birth; earlier attendance at events; being female; and attending art workshops, go and see visits or big map and big models workshops.

The average date of birth of respondents was 26 November 1969. Females born on this day who first attended events in 2014 and did not attend the above-mentioned events will form the baseline for this category. A response just to the negative side of "agree" for each of the Haverfordwest-related statements is equivalent to the expected level of positivity for these people.

While later dates of birth appear to be related to greater positivity about changes in Haverfordwest, the effect is quite small. The equivalent of one full step between points on the scale - e.g. from "agree" to "strongly agree" relates to a 50-year age difference.

For each year later that respondents attended their first event, positivity appears to fall by the equivalent of one quarter step. Non females were less positive than females by an average of around one third of a step.

Attendance at either art workshops or big map and big models workshops increased positivity by an average of just over half a step. Attendance at both events resulted in marginally lower average positivity than attendance at one or the other. Attending go and see visits increased average positivity by an additional two thirds of a step, regardless of which other events were attended.

Changing relationships with art

Changing relationships with art is the concept that was least explained by the other questions in the questionnaire. Only 23% of the variability was accounted for. This could have something to do with the lack of information on the level of respondents' engagement with art prior to the Confluence project, though it seems foolish to think that there is a limit to the breadth and depth of a person's artistic experience.

Average agreement with the statements was increased for people who attended more than 10 events, or who attended artists' talks or festival week events. It was decreased for people attending seminars or the river of lights procession and those that selected the "other" option in event types.

The average level of positivity for people who attended 10 events or fewer and who did not attend any of the above-mentioned events was equivalent to a response to the negative side of "agree" for each of the statements. Attendance at more than 10 events is associated with the equivalent of an increase of one full step in each of the ratings. Artists' talks are linked to an extra half step increase and festival events rate similarly with a little less than a half step increase.

Average agreement decreases by the equivalent of a half step for each statement for people who attended the river of lights procession. The decrease associated with attendance at seminars is a little more than a half step. Respondents who selected the "other" option for event type have a reduction in their average agreement rating equivalent to nearly three quarter steps. Use of the "other" option could be indicative of a lower level of engagement whilst attending the events.

The power of art

The final model is less reliable than the others. Only two statements contributed to the measure of the underlying concept. This means that the concept was less well-defined and therefore the measure is less reliable. The responses to the two statements were some of the most positive, meaning that the ratings were bunched together near the top of the scale and could not capture all the variation in opinions. The best model found for respondents' opinions on the power of art explains 36% of the variability. There are some problems with the model as it implies that some ratings would be far beyond the top of the scale, a step and a half above "strongly agree".

Once again, male respondents appear to have less positive views compared to non-males. As do people from Pembrokeshire when compared to those from further afield. Attendance at the river of lights procession also appears to be related to less positivity, whereas attendance at art workshops appears to be associated with greater positivity. There is evidence that positivity increases with the number of events attended.

Non-males from further afield than Pembrokeshire who attended one or two events but not art workshops or the river of lights procession had an average level of positivity equivalent to ratings around halfway between "agree" and "strongly agree" on each of the statements.

The decrease for males, on average, was equivalent to a little more than half a step. The average decrease for people from Pembrokeshire was equivalent to around one third of a step.

There was a very small decrease, equivalent to around one tenth of a step, for non-males who attended the river of lights procession. This decrease grew to just over one whole step for males. The average increase in ratings from people who attended art workshops was almost one half step.

The increase in positivity for non-males who attended between three and ten events was, on average, equivalent to around one fifth of a step and for those that attended more than ten events it was around two fifths. For males, these increases were one whole step and just over one and a half steps respectively.

5. Future participation

As a final measure of the popularity of the events, the following table shows the responses to the question about the extent of involvement that respondents would like in any future events that might occur. Each row shows the type of involvement and the number of people who said they would like to be involved that way. As respondents were allowed to select more than one option, the final column shows the number of people that selected each option as their maximum desired level of involvement. These numbers include the responses that were excluded from the analyses.

Level of involvement	Selection count	Maximum selection count
not be involved at all	10	10
be informed	70	30
participate	58	26
volunteer	31	22

organise an event	18	6
run an event	14	14

6. Ratings for each statement

	ngs for each statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
ents	The events were of a high standard	3	2	6	38	51
ev.	The events were well organised	1	3	10	30	56
the	The events were accessible	1	4	9	43	43
out	I enjoyed the events	1	2	7	29	61
Feelings about the events	I would attend more events like these	3	1	10	27	59
Feel	I would recommend events like these to others	3	1	9	29	58
	I feel more connected to Haverfordwest than I did 4 years ago	0	5	29	35	31
Changes in Haverfordwest	I feel more able to influence the future development of Haverfordwest than I did 4 years ago	2	12	35	32	19
s in Hav	Haverfordwest has changed for the better in the last 4 years	5	10	22	39	24
Change	I feel more hopeful about the future of Haverfordwest than I was 4 years ago	2	7	22	41	28
	I feel more inclined to spend time in Haverfordwest than I did 4 years ago	2	8	25	41	24
th art	My understanding of what art can be has broadened in the last 4 years	0	11	27	38	24
hips wi	I feel more influenced by art than I did 4 years ago	0	14	34	34	18
lations	I have become more involved in art over the last 4 years	2	13	29	33	23
Changing relationships with a	I have become more aware of different art forms than I was 4 years ago	1	9	36	35	19
ō	My enjoyment of art has increased in the last 4 years	1	9	34	34	22
4 6 t	Art improves my wellbeing	2	2	11	32	53
The power of art	Art and artists have a part to play in regeneration	2	2	7	25	64

7. Free text responses

'Other' event types

Halloween Parade
Planning meeting
Conference.
Bootg
Breaking out of the gallery, Orchard Mawr
Stupid rave boat thing
Open space
none attended - no awareness
Fire show

Comments after events statements

My only complaint is that they were drastically under-advertised!!!....There was not nearly enough promotion!...Too many people know too little about it. I would also have liked for there to have been more local Artists commissioned rather than outsiders...

The events helped to promote a community spirit

I think that the Confluence project helped to achieve a lot for Haverfordwest. It helped in a big way to build a positive momentum for change which now seems to be in full flow.

Limited end product. Those running the events seem to be the prime beneficiaries.

Fabulous events and projects that really made a difference to the feel of Haverfordwest in terms of increased sense of cohesion

more promotion of the event's to those who don't usually attend art events

I travel out of H west a lot at the weekend so often not around when event are on. Love the concept

We feel the town has benefited greatly from all the events because they have got so many people involved and made so many different art styles accessible.

I like the colour blue you chose for the questions - it reminds me of my little old camper van.

There is a desperate need for a project such as Confluence in Haverfordwest, this is demonstrated by the level of participation, especially for events such as River of Lights. There is clearly a need and an appetite for arts and regeneration work in this area.

This provides a much needed chance for community to meet & enjoy creative opportunities, which are hard to find in this area

It would be good to see future events advertised more widely; I found out about the first event I went to via afriend telling me.

Love this project. Inspiring, accessible and a great asset to Haverfordwest.

Particularly loved the river of lights processions - wonderful atmosphere and great community spirit

Impressed to see the variety of the programme and the amount of local people participating.

You can not have generic agrees or disagrees for the events . There was only 1 I thought any good but if I agree to events being good that would encompass all of them so it's a false reading seemed to be the same few people at all events, I went to.

The events were poorly publicised to the general public. They took no account of social inclusion with only the river of lights having an audience from the whole social spectrum. It would be interesting to know how many individuals attended the events. I suspect the same hundred people attended multiple events.

Very often the talks were attended by the art crowd from outside hwest who regularly attend/support art events. Not much was really targeting groups not normally interested in art. The lantern workshops were amazing and to see kids and groups involved was fantastic to see. But didn't see much targeting other groups e.g. Elderly. Bringing art into the lives of isolated people could have helped include more people in haverfordwest.

would have liked to have been a partner organisation in delivery/organising/supporting the people we work with

Comments after Haverfordwest statements

Thankyou

I have noticed lots of positive changes in the town centre in the last couple of years

Not sure of the connection - note difference between contribution and attribution I these things because of factors not necessarily linked to confluence

I feel all

Change has been noticeably people-led. A change of attitude and air of anticipation that has been positive

Question 11 answered from first principles basis, in that there are improvments, not necessarily by Confluence

I think these events have been great for Haverfordwest and Pembrokeshire. I never thought much of the town years ago, but because there has been an increase in community art events it has inspired me to get involved in more in pembrokeshire:)

The cultural activities have changed my perception of the town and drawn attention to some of the cultural, historical and environmental assets already there e.g. Castle, jail, riverbank, local artists, musicians, galleries. I feel more inclined to sop there and visit cafes for a nice day out. I live one hour away.

Loved the Art around town(this may not have been you but felt on the same wave length and the light festival, the crochet art. It gives the message that community matters

Confluence has encouraged more of a community feel in Haverfordwest and has shown us that we can make a difference to the town.

Interesting questions to ask. I still like the colour.

I think Haverfordwest has got worse but the confluence project is helping to reverse the decline caused by out of town development

More community spirit

Haverfordwest has declineddue to larger, stores being introduced out of the town. Local traders have lost that fall... Events like "out of the gallery' and Yarn bombing displatsfo bring people back into the town..the independent shops benefit from this ,it needs to happen more.

I feel Haverfordwest is changed for the better over the last 4 years - the project has helped to give people a sense of belonging and community

The last question I couldn't really answer as relating to anything I attended because I am already busy on regeneration myself so would support things and spend time.. not a representative member of public I am afraid.

I think the amazing job you did just highlighted how little there is in haverfordwest. There is even less in haverfordwest than there was 4 years ago. People couldn't join in anything else in hwest once they had come for an art event/town event. If the banks go there is really nothing to come to town for. I feel it has to be dealt with at a higher level to change the out of town shopping structure and move more into town to support the great work you and other groups are doing to create events in hwest

Not sure whether I'd attribute these improvements to Confluence I'm afraid - I think various elements of the developing community have influenced this....

Comments after art statements

Again, be careful of drawing conclusions from this. You don't know what my baseline was.

Keep up the amazing work, the message sends positive ripples to the whole of the community

I think the question colour is fairly close to being duck egg blue.

The benefits of creative opportunities are not understood by most people. This is a shame because it can be a great way to improve a persons welbeing.

Art , music and creativity bring communities together; people together share ideas and wonderful things always come out of that process....

I think a lot of people have been inspired by all the projects going on - it's been great to see and participate in all the wide variety of events - I hope it continues and goes from strength to strength.

Projects like this are so important in terms of combatting isolation and lonliness

These qus are so generic how can you possibly gain insights

Only reaching the same group of people,,,,,,also projects dated need people who have been involved in art practise in other areas to retun to pembs AND SHARE