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The utilisation of groups for innovation and knowledge transfer

The use of group processes to encourage innovation and to transfer best practice is relatively novel in the agricultural sector. However, *Menter a Busnes*, a Welsh economic development company, has been utilising this approach for over a decade. Since successfully tendering in 2011 to deliver the main elements of the Farming Connect programme funded by the Welsh Government under the Rural Development Plan, they have been developing and expanding group principles with a view to engaging a greater number of farmers for a variety of purposes and with a broad range of different groups. This paper outlines how the company initially became involved in group processes through the design and launch of the Agrisgôp programme which utilises Action Learning to develop ideas and resolve issues. Examples of some of the projects undertaken by the groups are given along with experiences relating to group dynamics and facilitation. The broader context of the current Farming Connect programme is described and the variety and nature of group processes currently being utilised for knowledge transfer is discussed. Two studies undertaken in relation to groups are outlined. The first considers whether personality can be used to predict effective facilitators of organisational change and the second involves the design and development of a mixed measures tool to quantify the impact of group processes over time. Finally some conclusions are drawn with regard to lessons learnt in relation to group methodologies and possible ways forward for the future.

Keywords: groups, Action Learning, facilitation, innovation, measuring impact, knowledge transfer

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Introduction

In a paper reflecting upon the current situation regarding AKIS (Agricultural Knowledge and Innovation Systems) (EU SCAR, 2012), the Standing Committee on Agricultural Research (SCAR) makes several comments which are pertinent to this study. The paper reports that although innovation is primarily the responsibility of individual businesses, there exists a lack of research into innovation and knowledge transfer in agriculture. Furthermore the paper suggests that the Common Agricultural Policy (CAP) needs to provide freedom for businesses to innovate and fail. Burnes (2004) reports that the successful organisations in the twenty first century are those that continually instigate change despite the fact that seven out of ten change interventions actually fail.

For the purpose of our paper, innovation is considered to mean any new technique, concept or idea that enables those who manage agricultural businesses to make those businesses more sustainable and viable in the future. Many of those involved in the Welsh Government's Farming Connect programme would agree that successful innovation is derived from support and encouragement to experiment with new developments but more importantly to reflect upon and to learn from each stage of the process. Furthermore, they would argue that the utilisation of group processes is a fundamental tool and EU SCAR (2012) concurs, stating that more of the CAP budget should be directed towards the empowerment of groups of farmers, particularly for knowledge transfer.

The potential for using groups to increase productivity and viability is enormous; organisations in both the private and public sectors who introduced group or team methodologies report increased productivity and profits as well as more effective sales and marketing; and the evidence also indicates reduced job turnover and improved staff morale (Hayes, 2006). Katzenbach and Smith (1993) contend that the only way forward for successful and ambitious organisations is the establishment of teams, which they maintain results in greater efficiency, improved ability to deal with challenging situations and increased customer satisfaction.

However, it is important to note that there can also be negative aspects to group working which managers and facilitators of groups should be aware of and take measures to avoid before they have a long term effect on the group's potency. These negative aspects include 'social loafing', where group members actually put in less effort when working in a group (Latané *et al.*, 1979), 'evaluation apprehension', when working in groups prevents individuals putting forward valid suggestions for fear of negative responses (Cottrell, 1972) and 'groupthink', where a group's overwhelming desire to agree and move forward positively can lead to a dangerously unrealistic perception of a situation (Janis, 1982).

Within the agricultural context, probably one of the first successful examples of bringing groups together with a view to improving profitability and efficiency through knowledge transfer was the monitor farm programme in New Zealand. Established in 1991, the monitor farm programme focuses on one farm for three to four years and brings together a community group to consider ways of improving profitability by improving grassland management, utilising improved genetics and analysing all aspects of farm management. The group designs and develops a business plan which is monitored over the project period and because the lessons learnt are relevant to all farmers within the group the benefits of improved practice are also transferred. Specific expertise such as consultants, vets and scientists are brought in to assist the process which is all arranged and organised by a facilitator (Beef + Lamb New Zealand, 2012). This successful and innovative model utilising group processes is one on which many of the subsequent European knowledge transfer programmes were based.

Murphy (2012) reviews the current literature on group techniques and makes several comments which are pertinent to this study, namely: facilitated group learning can be an extremely effective method for developing innovation with farmers, moreover the best way to support individuals through behavioural change is to assist them to clarify the issues and then enable them to develop their own solutions. Furthermore, he notes that when compared with individual

support, facilitating groups of farmers is a more sustainable means of changing behaviour and attitudes.

The objective of this paper is to outline how group techniques can contribute to innovation and knowledge transfer in rural businesses. The group approach developed for the Agrisgôp programme is in itself innovative and its success has resulted in continued growth over a ten year period and also a broadening of its application within the Welsh perspective. Furthermore, considerable potential exists to utilise this methodology across Europe and beyond and the majority of the lessons learnt are certainly considered transferable to other geographical contexts. The authors therefore wish to share their experiences of utilising group processes with farming clients in Wales and to develop ideas that will hopefully lead to more effective knowledge transfer through group methodology in the future.

Agrisgôp rationale, foundations and development

As a result of concerns regarding declining agricultural incomes and progressive reduction in subsidies, the Welsh Assembly Government launched the Agrisgôp programme in 2003. The programme is fully funded by the Welsh Government partly through European Union funding. Agrisgôp is a management development programme for the Welsh agricultural and forestry industries, designed to develop new business ideas and instigate positive change management. As an economic development company based in Wales, *Menter a Busnes* (MaB) was initially involved as a partner organisation in the design, development and launch of the Agrisgôp programme. As a result of successful delivery and through a series of tendering stages, MaB subsequently became wholly responsible for delivering Agrisgôp and eventually substantially involved with the Farming Connect programme as a whole as detailed later in this paper.

MaB is a practical organisation, drawing on diverse experiences of working with individuals, businesses, communities and public sector organisations to develop ways of thinking, inform decisions and deliver solutions. The company has been working with the agricultural sector in Wales since its involvement with the Cwysi project in 1994.

MaB employs a network of Agrisgôp Leaders throughout Wales, who recruit and develop groups of six to eight individuals and subsequently engage with them to develop group and individual ideas and to resolve issues, typically over a period of between nine and twelve months. In her review of the book 'Seeds for Change' (Pearce and Williams, 2010) published about the Agrisgôp programme, Pritchard (2011) reports that the Welsh Assembly Government's idea to seek to establish a management development programme 'for the intensely independent, pragmatic, 'self-contained', small businesses that make up Welsh farming' was a particularly novel and ambitious concept. To date, over 300 Sets (Agrisgôp groups) have been established resulting in a host of innovative and diverse group projects across Wales whose themes include adding value to primary produce, tourism, technical development, renewable energy, effective suc-

cession, biofuel processing and a brewery. However, those who work on the Agrisgôp programme believe that equally importantly they have changed the mindsets, attitudes to change and aspirations of thousands of individuals who have been involved with the project. This pioneering method for developing the rural sector demonstrates the support of best practice in a manner which engages a potentially resistant end user in knowledge transfer and innovation.

Agrisgôp, Action Learning and other group facilitation techniques

During the initial development and establishment of the Agrisgôp programme, Action Learning (McGill and Beaty, 2001) was selected as the process best suited to the development of ideas and resolving issues within the Agrisgôp groups. To utilise Action Learning as a facilitation process with very traditional Welsh farming family businesses was in itself ground breaking and innovative and considered by some to be at best risky and at worst foolhardy. However, despite being primarily used in very large corporate institutions, Action Learning has proven to be a highly successful and flexible tool which continues to be the primary group facilitation technique used by the group facilitators – known as Agrisgôp Leaders. It has been valuable in the development of ideas and resolution of issues; moreover its group methodology involves the combination of support and challenge which is a key factor in changing mindsets and attitudes to change, aligned with the idea that it is much easier to make difficult decisions when working with others. Also, Action Learning has enabled Agrisgôp Leaders to engage a target audience with a range of abilities and knowledge and has encouraged and strengthened commitment to the process and the group.

Nevertheless MaB has also constantly researched and developed new group facilitation techniques for use in tandem with Action Learning. Agrisgôp Leaders continually introduce, trial, develop and share new and innovative informal and typically short group facilitation techniques with their groups. Research has also been undertaken into other more formal and structured facilitation techniques, for example a comparison of Appreciative Inquiry (AI) and Creative Problem Solving (CPS) undertaken with both Agrisgôp groups and groups of Agrisgôp Leaders (Owen, 2008). Twenty-four participants in four equal sized teams engaged in a day's facilitation of either AI (Lewis *et al.*, 2008) or CPS (Isaksen *et al.*, 2000) and team potency was measured by individual questionnaires at the beginning, at the half way point and at the end of the session. The results suggested that although there was no effect on potency at the mid-task stage, group potency was higher at the post-task stage in both AI and CPS interventions. Furthermore, potency was significantly higher in the AI teams, when compared to the CPS teams.

Although alternative facilitation methods are constantly being trialled, adapted and developed, Action Learning continues to be the preferred primary technique utilised with Agrisgôp groups. The main reasons for this are that one of the main characteristics of the Action Learning process

is a strong ethos of confidentiality, which not only very quickly establishes trust within the group but also instils commitment to the group and the process. The fundamental Action Learning process of support and challenge also creates an environment where positive change is encouraged and this consequently enables and empowers individuals to make difficult decisions because they are working with others. Furthermore, Action Learning is an extremely flexible and adaptable process and this has proven invaluable to Agrisgôp Leaders, all of whom develop their own slightly different versions – albeit still facilitating within certain important guidelines. Finally to quote the founding father of Action Learning, Professor Reg Revans, MaB experience would certainly support his assertion that Action Learning is ‘deceptively simple – surprisingly powerful’.

Dynamics and developments of Agrisgôp groups

Since March 2003 more than 300 Agrisgôp groups have been recruited and facilitated in Wales. Every group is unique and they all start on a journey not knowing their destination; this is one of the challenges and also one of the key benefits of the programme. Over time, much has been learnt about the differing dynamics of groups and the importance of considering this when recruiting and establishing groups. Women and men behave differently in groups, particularly initially, as discussed below. Therefore women-only groups, men-only groups and mixed groups all have quite different characteristics. Some Agrisgôp Leaders choose to work only with groups consisting of husband and wife couples, which they maintain is the only way to progress businesses in an industry which is traditionally and still primarily family-based. Experience also suggests for example that whereas having a group of forward-thinking innovative individuals can result in rapid progress, there is also an argument for having a mix of innovative resource investigators, some more cautious considered challengers and some completer-finishers. This not only tempers the potentially risky enthusiasm of the innovators but also conversely they contribute by inspiring the other more cautious group members. Furthermore, the team has a greater spread of abilities and tendencies, decisions made are more robust and the overall distance travelled by the team can be considerably increased. This is only a small insight into differing group dynamics experienced through Agrisgôp, for example much anecdotal evidence exists for the differing dynamics, requirements and processes involved when working with groups below the age of thirty which are often although by no means exclusively groups of young men.

As all Agrisgôp groups are uniquely different, success is difficult to define or quantify, as indeed are the preferred methodologies for achieving success. MaB experience indicates that the more successful groups are those that display a greater commitment to the group, the process and to their Leader. Action Learning is considered crucial in establishing trust and commitment and also in subsequently changing mindsets and attitudes. However, the Agrisgôp team also

considers successful groups to be those who continue to meet and collaborate when they are no longer supported by their Agrisgôp Leader. Therefore it is fundamentally important that groups do not become over dependent on their Leaders and that they take responsibility for the group from its inception. Ironically, for the Agrisgôp Leaders it can be particularly difficult to ‘let go’ and move on from successful groups to the uncertainty of a brand new group. Again, experience within the team has considerably eased this process so that the groups themselves are now given much more responsibility from the outset, a strategy known as ‘starting with the end in mind’.

Not only are all groups and group members different, similarly all Agrisgôp Leaders are different, and this diversity is encouraged. New Leaders are initially given a background to the Agrisgôp programme, its aims, its rationale and its methodology. They are trained in a range of coaching and facilitation techniques including Action Learning and benefit from the experience of other Leaders and the styles and methods that they utilise with their Agrisgôp groups. However, new Leaders are then encouraged to develop their own styles to utilise the elements most appropriate to their personality, experience and groups and to trial and develop new techniques and methods. Outcomes and development of management capabilities within the clients are considered to be much more important than strictly following a particular process or methodology. Agrisgôp Leaders often report that the only thing they know for certain about their next group is that it will be totally different to any that have been run previously.

Over the last decade, many Agrisgôp groups have developed major group projects which have substantially improved the viability and profitability of the businesses involved:

- Several groups have negotiated contracts with major supermarket chains to supply their produce under a unique brand and at a premium price. The produce in question includes lamb (unsurprisingly), beef and eggs. A group in South Wales established and now run a butcher’s shop in the local village to co-operatively sell the meat they produce on their farms.
- Other Agrisgôp groups have utilised the process to research, develop and implement group and individual projects relating to renewable energy including biofuel, wind power, hydro and solar initiatives. The variety reflects changes over time in legislation, political will and financial incentives as well as suitability of particular farms to certain systems, usually determined by aspect and proximity to an electricity grid connection.
- Tourism is an important industry in Wales and often linked to farming businesses so it is natural that many Agrisgôp groups have explored the possibility of developing tourism ventures including ‘bed and breakfast’, camping, tea rooms and retailing to tourists. One particular group established a group tourism enterprise linked to a canal in mid Wales where visitors could spend several days travelling on or alongside the canal and experience a range of activities and accommodation along the way.

- Current groups are developing a broad range of projects, for example developing and promoting the Welsh Black cattle breed, ancient Welsh cattle breeds, Welsh Mountain sheep and the Welsh sheep dog. Other groups utilise the Agrisgôp process to strategically develop projects or organisations, examples being the Young Farmers' Association and the Wildlife Trust.

It is practically impossible to outline the nature of Agrisgôp groups without resulting in stereotyping or categorising. The above is an extremely small sample to demonstrate the diversity of Agrisgôp groups. It is a common misconception that Agrisgôp is a scheme to support farm diversification and, whilst it is extremely well suited to developing initiatives linked to tourism, renewable energy or adding value to primary produce, it is by no means restricted to these types of projects. Many businesses utilise Agrisgôp to develop core business activities linked to current traditional enterprises such as dairy, beef, sheep or arable. Groups consider animal health and welfare, crop development, genetics, performance recording, conservation and new technology linked to equipment, machinery and buildings. Discussions around managing staff, seasonal variations in staffing requirements, efficient co-working with family members and succession of family farming businesses are also commonplace.

Whilst those close to Agrisgôp and with extensive experience of working in the groups would agree that the flagship projects are very newsworthy and promote the success of the project to potential clients and funders alike, the true value of the project is that it changes mindsets and attitudes and develops the individual group members in ways and to an extent that they would never believe at the outset. Therefore, the underlying rationale and fall-back position of Agrisgôp is that it is a Management Development Programme. Its aim is to develop the human resources within the client businesses with a view to assisting those individuals to manage their businesses in ways which are more profitable, viable and strategic, and ultimately more sustainable in every sense of the word. MaB has discovered that working intensively with relatively small but committed groups over a short period of nine to twelve months is an extremely effective means of achieving this.

Farming Connect overview – history and development

Farming Connect was launched in 2001 as the main support programme for the agricultural industry in Wales. It was established to deliver the best possible advice on new technologies and production techniques to the Welsh farming industry, the aim being to enable farms to diversify, improve business viability and access new markets for their products and services. The 2000-2006 Rural Development Plan programme was reported to have been particularly successful and to have supported over 6000 farm businesses in maximising their potential (Ekos, 2008).

Farming Connect was restructured in 2007 to include the Farm Advisory Service, while continuing to offer a service

that supported farming families to make the most of their agricultural and forestry businesses. In 2008 Farming Connect was re-launched, offering an enhanced service made up of a mixture of fully-funded and subsidised services. The subsidised services are mainly directed at individuals and include one-to-one subsidised support to help farmers and foresters develop their farm or forestry business. The Skills Development Programme provides access to training throughout Wales, practical and regulation-linked, as well as fully-funded skills assessments which identify knowledge and skills gaps within the industry.

The fully funded services from 2008 to 2011 included sector-specific development programmes (climate change, dairy, land management, organic and red meat), enabling farmers and foresters to learn from others and to share best practice by joining discussion groups, visiting demonstration farms and attending open days in their area. Prior to 2011 the delivery of knowledge transfer to each sector was undertaken by a separate organisation. However, following a tendering process in 2011, MaB was successful in its bid to deliver an integrated, joined-up delivery service that provided one point of contact for interested farmers and foresters and established climate change as an overarching theme for all delivery. Other cross-cutting themes within the delivery include animal health and welfare, health and safety, effective use of ICT, women and young entrants.

MaB is responsible for delivering the following three Farming Connect Delivery Contracts funded by the Welsh Government under the Rural Development Plan during the period 1 September 2011 to 31 December 2013:

- Farming Connect Knowledge Transfer Programme (Lot 1)
- Farming Connect Industry Development (Event Management) and Communications (Lot 2)
- Farming Connect Co-ordinators, Skills Development and Agrisgôp Management Development Programmes (Lot 3)

MaB is therefore currently responsible for delivering Farming Connect in its entirety with the exception of the advisory/consultancy element [Lot 4] which the Welsh Government deemed in the tender should by necessity be supplied by organisations other than the one delivering the main programme.

Menter a Busnes and Farming Connect since 2011

The extensive knowledge and experience within MaB from a range of projects including Agrisgôp was used to develop the group-based methodology for developing and promoting knowledge transfer and innovation to the agricultural industry in Wales. MaB believes that group discussion is vital to the development of a deep understanding of science and policy, and to improving the level of best practice adoption. This concurs with the view expressed in the 'Sustainable Farming and Environment – Action Towards 2010' report (2020 Group, 2007, p.9):

To encourage future collaboration, innovation and change in the farming community we believe that the Farming Connect and Agriscop approaches in terms of group working, learning and knowledge transfer should be an important mechanism.

Based on previous experience, MaB developed a wide range of group activities within the Farming Connect programme. These can be categorised as follows:

- Discussion groups. These are primarily larger groups of approximately 20 farmers who come together over the winter months to listen to experts and specialist speakers. They include 'farmer champions' within our range of speakers, as sometimes the more progressive farmers have a greater impact on the audience. These are excellent means of raising awareness amongst the farming industry on particular topics.
- Demonstration Farm groups. Based on the same principle as the monitor farms in New Zealand, these are groups that are established around a demonstration farm, with a particular view of guiding the development of a specific farm project through knowledge development.
- Women's groups. Arguably, past knowledge transfer delivery in Wales has been geared towards men. This is a common trend worldwide. Trauger *et al.* (2010) studied agricultural extension programmes in Pennsylvania and concluded (p.98) that:

Curricula are developed to meet the male farmers' needs, and when they do not meet the needs of women, neither the content of the programming nor their ideas about women is seen in need of revision. Rather, the woman farmer herself is framed as an inadequate fit to the programme ...

Working with women, and especially women involved in farming has always featured prominently in MaB's work. Therefore, within the current knowledge transfer programme MaB has included the *Merched y Maes* groups which aim to provide a knowledge transfer programme tailored to meet the needs of women. The delivery of technical knowledge and information is targeted towards women, who are renowned for their ability to embrace change. This is supported by the Agriscop experience with Action Learning, where it became evident in the early groups that women were much more open to the process and approached the group with a strong will to support the group so that it could develop successfully. Conversely, men tended to be much more sceptical, even cynical with their initial response much more likely to be 'where's the catch?' or 'what's in it for me?'

- Young Farmer groups. Establishing groups of young farmers has also been effective. The farmer's son or daughter typically does not wish to attend the same discussion group as their father. Therefore by bringing them together as a group we are able to provide knowledge transfer that is tailored to their needs.
- Workshops. Each farmer in the workshop group is

encouraged to carry out a test or analysis on his/her own farm which will provide the focus for the discussions during the workshop. This personalised aspect to the discussion together with the fact that the farmer will get a free sample ensures 'buy-in' from participating farmers. Typical workshop topics include: silage analysis, soil sampling, slurry and farmyard manure analysis, fluke resistance tests, scab/biting lice tests, bovine viral diarrhoea testing and mastitis bacteriology tests.

- Study tours. Considerable knowledge can be gained when a group of individuals spends a concentrated amount of time away from their home environment and outside their 'comfort zone'. The broadening of horizons and the social discussions that can happen over a two to three day tour can lead to life-changing decisions within a farming business.
- Business Clubs. These seek to engage with those farmers who perceive themselves as 'businessmen'. The objective of the Business Clubs is to improve business performance with the primary aim of introducing benchmarking which has, historically, had a low uptake by the industry. We have found that farmers who have taken part in the Agriscop programme are excellent members of Business Clubs as they have already gained the trust and support of their fellow members.
- Agri Academy. This is an innovative knowledge transfer delivery mechanism aimed at the most progressive farmer. There are two strands to the Agri Academy – the Business and Innovation programme and the Rural Leadership programme. Both are aimed at developing individuals by taking them on a group based course which includes tasks, visits, inspirational talks and challenges.

The success of any group activity relies heavily on the facilitator. A strong facilitator makes effective use of available resources, including expert speakers, to support and challenge farmers to realistically assess their current situation and to base decisions on sound knowledge that is applicable to the development of their future businesses. The facilitator needs to 'understand' the farming community and relate to their way of thinking in order to communicate relevant messages. The facilitator needs to be a well respected individual within the area and needs to be able to speak the language of the people. There is also a continuous need to provide training and support for facilitators. Being a facilitator, operating on a local basis, is often a lonely experience and providing effective back up for facilitators is essential for project success. One of the key methods developed by MaB to address this is to allocate a mentor for all new Agriscop Leaders who is experienced and also currently working as an Agriscop Leader. This buddy system, whereby the mentor's role can include coach, sounding board, supporter, challenger and advisor is colloquially known, after the famous television game show *Who Wants to Be a Millionaire?*, by Agriscop Leaders as 'my phone a friend'.

Selecting facilitators and measuring the impact

The intention here is to briefly outline two relevant studies undertaken by MaB. The first was undertaken in 2011 as a result of the high turnover in Agrisgôp Leaders for a variety of reasons including the insular nature of the work, difficulty in recruiting groups, high levels of stress/responsibility and in many cases an overriding desire to act in a consultancy or advisory role as opposed to following the Agrisgôp rationale of facilitating groups to reach their own conclusions. Consequently, a study was undertaken with a view to considering whether personality measures could be utilised to predict individuals who would be effective facilitators of organisational change.

Participants in this study (n=37) were all either currently working as Leaders on the Agrisgôp programme or had previously worked as Agrisgôp Leaders. They completed two personality questionnaires namely a questionnaire administering the 100 item set of IPIP Big-Five Factor Markers (Goldberg, 1990) and the Myers-Briggs Type Indicator (MBTI), (Myers-Briggs, 1982). A third questionnaire was utilised in this study, namely the Consultant Effectiveness Questionnaire developed by Hamilton (1988) based on the requisite competency clusters deemed necessary for consultants working with organisational change. The questionnaire employs nine, five-point Likert scales and was completed by a manager who scored each participant according to the degree to which they believe the change agents 'measured up' to each of nine questions relating to organisational effectiveness.

Multiple regression was used to examine relationships between the dependant variable 'consultant effectiveness' and the combined effect of the other factors measured by the responses on the Big 5 and the MBTI. The main findings of this study indicated a strong correlation between consultant effectiveness and the factor of 'agreeableness' on the Big Five scale. The results also indicated a less strong yet significant relationship between 'extraversion' and 'consultant effectiveness'. However, no evidence was found that the MBTI in any way predicted effective organisational change facilitation.

The second study instigated in September 2011 came about as a result of increasing pressure from several quarters, not least the funders, to quantify the impact (financial, perspective, attitudinal and continuing) of group-based organisational change programmes such as Agrisgôp. Consequently, a mixed-measures longitudinal tool is currently completed by all Agrisgôp group members pre-, mid- and post-group and the data will be analysed at the end of 2013 when the current Farming Connect tender ends. It is hoped that this tool will become a useful indicator of the impact of the process whilst also developing knowledge regarding original means of measuring and evaluating these types of programmes. Again this outlines innovation and knowledge transfer at several levels in that the mindsets of the farmer clients are certainly being changed; however the success of this novel approach is also influential in that it changes the mindsets of the facilitators who engage with the clients and potentially the programme managers and even the policy makers.

Conclusions: the challenges going forward

What has been learnt, what is still to be discovered or addressed and how should this be best implemented? Currently the changing nature of Welsh (and European) agricultural businesses, further CAP reforms on the horizon, the perennial issues of succession for farming families, economic viability/sustainability and on-going issues with encouraging farmers to collaborate are all major issues in relation to groups, knowledge transfer and innovation. Based on MaB's experience of utilising groups for knowledge transfer and innovation as discussed in this paper, the following conclusions have been drawn to underline the main points discussed:

- Group-based processes can certainly be a very effective means of knowledge transfer and instigating innovation with farmers, not least because the combined support and challenge approach affects mindsets and attitudes to change;
- Longer-term relationships and smaller groups have proven effective with Agrisgôp in terms of farmer engagement and commitment to the group, and consideration should be given to utilising some of these methodologies with more traditional knowledge transfer groups;
- It is important to consider group dynamics when establishing and facilitating groups; with factors to consider including age, gender, proportion of innovators and size of groups;
- Action Learning as a process is in itself effective in encouraging commitment to the group with confidentiality and trust being key components in developing and sustaining this commitment;
- Whilst Action Learning is very effective as a group facilitation technique, other methods such as Appreciative Inquiry are also valuable and more research is required into alternative approaches, their utilisation and application;
- High turnover of group facilitators is common and more research is required into effective methods for their selection, training and mentoring;
- Empirically based best practice should be more effectively integrated into programmes such as Farming Connect. Furthermore, programme providers such as MaB need to become more involved in conducting such research, in implementing the findings and sharing them with a wider audience.

In summary, MaB's experience indicates that the establishment of small, close knit groups with a dedicated experienced facilitator and utilising Action Learning methodology can result in extremely effective and sustainable innovation and knowledge transfer. Analysis of the results of the longitudinal mixed-measures study will hopefully yield quantifiable evidence of the true impact of Agrisgôp methodology. However, success is currently indicated by regular feedback from the farmer clients, the on-going recruitment of new groups and the continued involvement of MaB with the delivery of the Farming Connect programme.

References

- 2020 Group (2007): Sustainable Farming and Environment: Action Towards 2020. Wales: 2020 Group.
- Beef + Lamb New Zealand (2012): Monitor Farms [www document]. <http://www.beeflambnz.com/farm/project-farms/monitor-farms/> (accessed 15 July 2012).
- Burnes, B. (2004): *Managing Change* (4th edition). Harlow: Pearson Education Ltd.
- Cottrell, N.B. (1972): Social Facilitation, in C. McClintock (ed.), *Experimental Social Psychology*. New York: Holt, Rinehart & Winston, 185–236.
- Ekos (2008): Ex Post Evaluation of the Rural Development Plan 2000–2006. Final Report for the Welsh Assembly Government, December 2008. Glasgow: Ekos Ltd.
- EU SCAR (2012): Agricultural knowledge and innovation systems in transition – a reflection paper. Brussel: European Commission.
- Goldberg, L.R. (1990): An Alternative “Description of Personality”: The Big-Five Factor Structure. *Journal of Personality and Social Psychology* **59** (6), 1216–1229. <http://dx.doi.org/10.1037/0022-3514.59.6.1216>
- Hamilton, E.E. (1988): The Facilitation of Organizational Change: An Empirical Study of Factors Predicting Change Agents’ Effectiveness. *Journal of Applied Behavioral Science* **24**, 37–59. <http://dx.doi.org/10.1177/0021886388241006>
- Hayes, N. (2006): *Managing Teams – A strategy for success* (2nd edition). London: Thomson.
- Isaksen, S.G., De Schryver, L., Dorval, K.B., McCluskey, K.W. and Treffinger, D.J. (2000): *Facilitative Leadership – Making a Difference with Creative Problem Solving*. Buffalo: Creative Problem Solving Group.
- Janis, I.L. (1982): *Groupthink* (2nd edition). Boston: Houghton Mifflin.
- Katzenbach, J.R. and Smith, D.K. (1993): *The Wisdom of Teams: Creating the High-performance Organization*. Boston: Harvard Business School Press.
- Latané, B., Williams, K. and Harkins, S. (1979): Many hands make light work: the causes and consequences of social loafing. *Journal of Personality and Social Psychology* **37**, 822–833. <http://dx.doi.org/10.1037/0022-3514.37.6.822>
- Lewis, S., Passmore, J. and Cantore, S. (2008): *Appreciative Inquiry for Change Management – Using AI to Facilitate Organizational Development*. London: Kogan Page.
- McGill, I. and Beaty, L. (2001): *Action Learning – a guide for professional, management & educational development* (2nd edition). London: Kogan Page.
- Murphy, J. (2012): The contribution of facilitated group learning to supporting innovation amongst farmers. *Studies in Agricultural Economics* **114** (2), 93–98.
- Myers-Briggs, I. (1982): *Introduction to type*. Palo Alto, CA: Consulting Psychologists Press.
- Owen, W. (2008): *Appreciative Inquiry, Creative Problem Solving and Group Potency*. Unpublished dissertation. Oxford: Oxford Brookes University.
- Pearce, D. and Williams, E. (2010): *Seeds for Change – Action Learning for Innovation*. Aberystwyth: Menter a Busnes.
- Pritchard, S. (2011): Seeds for change. *Action Learning: Research and Practice* **8** (1), 77–78. <http://dx.doi.org/10.1080/14767333.2010.518385>
- Trauger, A., Sachs, C., Barbercheck, M., Kiernan, N.E., Brasier, K. and Schwartzberg, A. (2010): The Object of Extension: Agricultural Education and Authentic Farmers in Pennsylvania. *Sociologia Ruralis* **50** (2), 85–103. <http://dx.doi.org/10.1111/j.1467-9523.2010.00507.x>