Demystifying Farmer Field School Concepts
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This article responds to the recent paper on farmer field schools (FFS) by Dr. Kristin Davis in the Journal of International Agricultural and Extension Education, Volume 13, Number 1, page 91-97 which was subsequently noted in the ECAPAPA Newsletter Vol. 9 No. 06. The paper raises some interesting issues in agricultural extension, but tends to confuse some aspects of FFS such as notions of sustainability, lateral information flow (diffusion), evaluation and funding. Further, the conclusions and opinions are based on a review of a limited number of “peer-reviewed” articles rather than a full literature search. As such, some conclusions are not well justified and also not well reflected in the results of the main studies referred to. It is unfortunate that FFS practitioners were not given an opportunity to review the article – the acknowledgements only refer to researchers and World Bank staff. In this article we will not review the entire FFS movement and literature base, as such a review has recently been completed under contract for ILRI that will soon be published. We have prepared a short question and answer format of comments on issues raised in Davis’ paper. This article is a constructive reflection of the views of a number of FFS practitioners.

What is the background of FFS? The FFS grew out of the T&V process in 1988 through improvements needed at the time to address the national threat of a rice insect outbreak in Indonesia that depended on local complex decision making by farmers in their fields. Under T&V, schooled extension staff were expected to be experts delivering messages from research to farmers, but many messages were inappropriate, too simple and the messengers not local experts. This “technology transfer” model was not functioning to manage large-scale outbreaks of the rice brown planthopper which threatened rice self-sufficiency in Indonesia, nor were the more than US$150 million in pesticide subsidies (FFS programmes costs are significantly less). In FFS, extension staff became “facilitators” who assisted men and women farmers to merge local indigenous knowledge with modern scientific rice ecological knowledge. The changed relationship honored local farmer expertise and allowed for better relationship with their external extension staff while encouraging new ecological science to be incorporated into decision making. In these traditional cultures, it was also culturally inappropriate for young extension staff to instruct older farmers but not culturally inappropriate for them to facilitate learning activities. Other FFS changes included promotion of farmer facilitators who were often considered better than external extension agents because they knew local terms and knew participants better. The hands-on nature of FFS experiential learning is merely a good educational practice of using more senses in a learning process. The FFS form and structure therefore grew from the practical need for field observation and decision making practice, use of a facilitative leader, or formation of a local group to self-organise the study field and participants. Weekly (most annual crops and livestock), bi-weekly (some long-term crops) or monthly (most perennial crops) regular schedules of meeting developed as a compromise between learning cycles based on crop management timing and farmer schedules. It should be noted that models such as functional literacy, children’s primary health care and other practical programmes were used during design processes under an adult education team leader.

Are FFS “new”? No and yes. Dutch, Swedish and Danish farmers have met regularly for self-study since WWII in various study circles. Australian rice farmers meet on

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*RiceCheck* methods throughout a growing season. Women take children to primary health care facilities regularly based on need for learning. Functional literacy groups meet regularly. Similar effective methods such as work done in Latin America with World Neighbors (Two Ears of Corn) and in community groups such as LandCare or Adopt-A-Stream would seem to testify to the suitability of the basic principles which FFS have in common with these other programmes. FFS adapted these models into the agricultural extension context moving from “technology transfer” to adult education. Tools widely used such as PRA exercises, transformative learning through drama and song and the action learning cycle were also modified to fit in an agricultural adult learning context through the FFS.

**Are FFS designed to be sustained?** No and Yes. FFS were designed to be time-bound with a built-in exit strategy: graduation. Originally the FFS itself is not meant to be sustained (notions of “institutional inertia” and “sustainability” are often confused). However, the impact of FFS in terms of economic, social, environmental and political assets are hoped to be sustained. Therefore a livelihood analysis is perhaps more appropriate for sustainability assessments. FFS can be a “stepping stone” to self-sustained groups in some situations. The FFS format builds sustainable human and social capital needed for next step actions among farmers such as collective marketing of produce and lobbying through farmer networks, savings groups and other associations that are sustained as independent groups, no longer registered by projects as “outputs”. Recent emergence of FFS Networks and FFS Federations in East Africa that are farmer-owned independent associations with elected boards and member financing are examples. The Indonesian *Ikatan Petani PHT* is an association of IPM FFS graduates that continues more than 10 years after establishment outside IPM projects and still support member learning as well as advocacy for farmer rights. The Sri Lankan case study showed that IPM FFS graduates continued to sustain impact even after five years without FFS structures. However, if “sustainable” means “affordable”, then new self-financed groups that pay for extension operational costs while demanding high quality services indicate that FFS may be the only extension methodology widely used that generate their own operational support costs on a very sustainable basis and are already an example of what the Neuchâtel group is hoping will be developed in demand-driven extension.

**Are all FFS the same?** No. FFS have different goals depending on the topic and setting. In the case of IPM or integrated production and pest management (IPPM), it is expected that farmers will improve production and pest management practices, which may or may not include reducing pesticide use, and may or may not include increased yields. However, it should always improve productivity or profitability. A dairy FFS will focus on good dairy practices appropriate to the participants; soil and water management FFS on long term soil husbandry issues; Junior Farmer Field and Life Schools for HIV/AIDS orphans focus on life skills, peer support and income generation. Increasingly the FFS learning process is also being taken up for non-agricultural based learning such as the Farmer Life Schools in Cambodia and Reproductive Health Field Schools in Kenya. FFS are also “stepping stones” to build technical and social skills, and move to networks, federations and associations.

**Does “one size fit all”?** Yes and No. Anywhere in the world you may visit a building with a teacher and children learning on a daily basis. This is recognized as a primary school. The form and structure have been shown to be useful globally. However, the cultural relationships between teacher and learner, the content of the learning and the classroom processes will vary. This is also true for the FFS. The regular meetings based on the crop/livestock management schedule with hands-on structured learning in study fields with facilitators and learners seems to work globally. However, in some countries it is inappropriate to mix men and women; in some countries poetry and singing is very much a culturally enjoyable part of learning (and a good tool for remembering) while in other cultures
it is not; content, schedules and costs will vary depending on the goals of the learners and the local circumstances (e.g. temperate vs tropical rice production).

Basic FFS implementation guidelines and schedules are perceived by some as too rigid – not allowing enough flexibility. It is important to understand that the core of FFS relates to broad underlying principles of participation and adult education. These principles can be applied in a variety of ways, and lots of innovative FFS applications are coming out of the work of skilled facilitators. However, in reality a majority of the extension staff and service providers are not skilled and innovative facilitators, but on the contrary find it very difficult to shift from a top-down “technology transfer” mindset to becoming a facilitator in the real sense. In this context the FFS methodology with its step by step implementation guidelines (i.e. subgroups, AESA, special topic etc.) should not be underestimated in the way that it assists even the most top-down individuals to facilitate participatory and farmer-centered extension – meanwhile they undergo a process of personal development and change of attitude.

Are FFS specifically for “technology transfer”? No. The extension notion of “technology transfer” is limited when messages need to be adapted locally. Most sustainable agricultural practices are knowledge intensive (as compared to input intensive agriculture) and as such very few blanket recommendations exist and practices (especially among smallholders) need to be developed or adapted locally. The FFS took on an educational approach that emphasized analytical methods such as experiential learning, action research and critical thinking, to enable farmers to take the lead in local adaptation of practices. Many of the “technologies” transmitted in an FFS are from the members themselves, sharing information and developing new locally appropriate solutions to local problems by building on their learning. There are instances in which “technology transfer” is useful and for such issues, non-FFS methods, such as radio and community meetings are often more appropriate.

Are FFS the only method for extension? No. FFS are particularly good for intensive hands-on field management issues where there is significant new content for learners. A FFS on sorghum for example would not be appropriate because farmers in most cases are doing the best that is possible and there is not sufficient new information –action research on new varieties would likely be more appropriate and effective. A simple change in early pesticide application on rice does not require an FFS but may be better transmitted through radio combined with simple field testing. Use of posters, leaflets, radio messages, TV, internet, farmer-to-farmer, study circles and action research are all appropriate methods which have specific strengths and weaknesses.

Are FFS an extension system? No. FFS may be used by any government, NGO or private sector extension system, especially those that are dealing with improving both local technology and building human capital as opposed to external “technology transfer”. Unfortunately, extension systems are often stuck with “technology transfer” rather than client-oriented programmes. Imagine a community interested in developing a citrus industry... Client-oriented work would mean that in the first years, service providers will be working with clients (producers and buyers in the value chain) to establish desired varieties in nurseries, citrus production management skills and as time progressed move towards improved quality and marketing and finally towards added value on farm (sorting, coloring, etc). FFS in this system fit because they are flexible and build both technical and human capital appropriate to the client demand/orientation. FFS may not fit as well into “technology transfer” systems because the learners are advancing while the extension service is often stagnant and waiting for new messages from researchers.

FFS has been found to work best in the context of a progressive demand-driven extension policy process, in which accountability among extension staff is towards farmers rather than
towards their superiors (often achieved by allowing farmers to decide about the allocations of extension funds) and when there is a policy environment that encourages organizational growth and favorable market conditions for smallholders. For example the complementarities between the NAADS system in Uganda and FFS have been found to cater for greater impact than each of the two systems could have achieved separately, in which FFS supports local learning and building a social capital base while NAADS provides the right institutional and policy framework for farmers to move a step further.

What about scaling-up? Two large-scale programmes in Vietnam and Indonesia are instructive. In both cases, the combination of FFS, policy changes and public information averted major pest outbreaks over large areas (millions of hectares) in relatively short time frames. A large programme in Kenya with 30,000 farmers is still small compared to the population of farmers and should not be expected to have national impact – although local impact is substantial. The inertia of T&V “technology transfer” in most countries has yet to subside so there are yet to be any adult education national efforts using FFS that might register national impact. Methods for up-scaling have been developed for certain mainstream agricultural development programmes, such as the Agricultural Services Support Programme in Tanzania. At any rate, FFS should be seen as one element of up-scaling an appropriate response within demand-driven systems – not up-scaling of FFS for their own sake!

What are weaknesses of FFS? The first weakness is variation among extension staff. Most existing extension staff in many countries were hired and trained under T&V top down extension funding (NAEP). The staff must be retrained in facilitation skills that allow a melding of local knowledge and external science based knowledge with client service orientation. Variation in extension staff, just as in any teaching environment, result in variations of FFS quality. Well trained farmers are often better facilitators as they are more practical, have the respect of the community and know local conditions better. The second weakness is the investment cost (education is not for free) under structural adjustment and declining agricultural (national) budgets. This weakness is being addressed by farmers using the FFS for raising funds to finance the operational costs of the FFS (proceeds from field production are used to pay for facilitators and learning materials – a system developed by women’s groups in Kenya and now being institutionalized with IFAD support). Privatized FFS Networks will eventually fund the upfront investment. The third weakness, despite FFS attracting mostly women farmers, is participation of the most vulnerable – this is a general problem in development work and being addressed where available through “food for training” arrangements, which allow the poorest to join in development activities including FFS. Other methods of educational sharing such as radio and posters may help in some aspects although the poorest in many countries don’t have access to radios nor literacy education. Farmer to farmer methods seem most promising (think of peer led study circles for those not familiar with farmers).

What is the future of FFS? The FFS movement is strong and projects are increasingly moving out of the donor portfolio to government or farmer organization managed programmes. If we were to venture a prediction in trends, the growing interest in “Education for All” and continuing education will encourage FFS and similar programmes’ implementation within an adult education context while agricultural extension continues to decline due to limited success of “technology transfer” concepts (case of institutional inertia and failure to adapt). FFS are becoming cheaper with self-financing and are an effective widely appreciated format for a growing number of topics. External observers will also begin to appreciate its appropriate niche and may reduce their antagonism arising from their suspicion of anything that has high praises and local ownership by farmers. The current trend of FFS moving far outside the scope of agriculture is expected to continue and it is likely FFS (or adaptation of its principles) will be seen in future as a community educational approach independent on the topic.
What about “peer reviewed journal” articles? Can one really imagine that these articles so coveted by the academic “lords of science” should be the only source of information to lead communities or donors in decision making? Not to mention the inaccessibility of the journals to field practitioners. While such articles are important for quality assurance among scientists, they are not without their problems. Limitations include lies (Dr Hwang in Korea on cloning to mention a recent one), corporate bias (e.g. tobacco industry sponsored research for years now replaced by GMO and pesticide industry), non-publishing of negative results and the peer review process itself. For example, the much cited papers by Dr Feder et al on FFS that the World Bank has chosen to promote widely are peer reviewed for analytical process but the dataset used was not peer-reviewed. Publishers could not know that the dataset was flawed due to collection of data during the height of the economic crisis (1997) in Indonesia, the situation in the “control villages” and other variables resulting in [widely reported] flawed conclusions. Practitioners have reported these problems but the journal articles themselves continue to be cited without these critical reports. One should recall that the journal articles themselves are paid for by the authors or their institutions and thus the “peer reviewed journal” are not available to all persons wishing to publish.

Communities and donors, however, do use peer review methods of other types to maintain quality of field programmes. Independent external reviews such as midterm and final evaluations of project by leading experts, field visits, thesis studies and other methods do provide first hand reports and “grey literature” that is also peer review. The “rush of donors” to support FFS is based more on direct field observation, commissioned studies and other methods that do not find their results in pay-by-page peer reviewed journals. To suggest that donors and communities are following fads mindlessly or should only be consulting distant libraries for academic reviews of even more distant and uninformed reviewers seems to suggest that only the “lords of science” know what is having an impact. In the case of Dr Feder, one wonders if he knows the existence of self-sustained commercialized groups that grew out of Indonesian FFS human capital investments, or the national federation of IPM farmers – he has not prepared a peer reviewed article on these long-term impacts. Does that mean that they do not exist or that reported field observations by experts are not valid demonstrations of reality?

Are there other evaluations of FFS besides those listed in Davis’ paper? There are plenty. Based on the ILRI study, an FFS bibliography has been compiled, which is a knowledge building block for assessing the impact of FFS. Davis’ paper could have probably come to different conclusions with access to at least the following papers (mainly not peer-reviewed) and reports:


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4 Several organisations in Kenya that have taken up FFS lately such as DANIDA, PLAN and CRS, mention that the starting point for them to take up the approach was the “word of mouth” going on at local level, i.e. farmers and field staff seeing FFS projects and putting pressure on their local coordinators to include FFS and then this demand transmitting to higher levels.

5 Those interested can obtain a copy from arnoud.braun@farmerfieldschool.net
- Friis-Hansen Esbern, 2005, Agricultural development among poor farmers in Soroti district, Uganda: Impact assessment of agricultural technology, farmer empowerment and changes in opportunity structures, DIIS, Denmark
- Mancini, F., 2006. Impact of integrated pest management farmer field schools on health, farming systems, the environment, and livelihoods of cotton growers in Southern India. Published doctoral dissertation, Wageningen University, the Netherlands. 112 pp.