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Don't Forget, It's a Small Island: A Case Study of Population Policy and Research Utilization

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**DON'T FORGET, IT'S A SMALL ISLAND: A CASE STUDY OF
POPULATION POLICY AND RESEARCH UTILIZATION**

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UNIVERSITY OF MASSACHUSETTS AT AMHERST**

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ABSTRACT

THIS CASE STUDY DESCRIBES, FROM A PARTICIPANT'S VIEWPOINT, THE CHRONOLOGICAL UNFOLDING OF TAIWAN'S FIRST ISLAND-WIDE POPULATION EDUCATION APPROACH IN THE CLASSROOM. CULTURAL, BUREAUCRATIC AND POLITICAL OBSTACLES TO CHANGE AND THEIR COMPLEX INTERACTION ARE DISCUSSED. A COMMENTARY AND SUGGESTIONS FOR DISCUSSION ARE INCLUDED.

The author is grateful for suggestions made by J.F. Tsai, the Chinese Center for International Training in Family Planning, H.C. Niu, Taiwan Provincial Institute of Family Planning, Laura Lu, Taiwan Normal University, C.C. Cernada, and S.M. Keeny. This study was made possible by a grant from the Ford and Rockefeller foundations. A more extensive treatment of this subject along with other case studies may be found in Knowledge Into Action, George Cernada, Baywood Publishing Co. (1982).

DON'T FORGET, IT'S A SMALL ISLAND:
A CASE STUDY IN POPULATION POLICY AND RESEARCH UTILIZATION

SUMMARY

The slogan "Don't forget, it's a small island" (勿忘在莒) is seen frequently in bold characters on the bustling highways and byways of Taiwan's 245 miles in length and 85 miles in breadth. The slogan refers not only to size but also to the "Return to the Mainland" rallying cry reminding the 18 million inhabitants that Taiwan is administratively only a province of the Republic of China which has been headquartered temporarily in Taipei for the thirty years since it left the China mainland.

This combination of population and vital political considerations has strongly influenced the relative degree of emphasis the present Government was to place on population programs, particularly fertility control. So long as Mainland China preferred to pretend during the 1960's that it was taking little or no action to curb population growth, Taiwan, its major ideological and economic competitor, had to maintain a low family planning program profile. On the other hand, so long as the Republic of China (Taiwan) needed collaborative programs with its partner countries to maintain its influence, particularly in the United Nations, it had to be particularly cognizant of how the outside world, both "developed" and "developing" viewed its internal and external actions. One result was that the Government's official stance within the island was to support the program but only "unofficially", to talk less about the subject but actively provide services: in short, to maintain a low internal profile. On the

other hand, the program administration, largely through the public health department, was encouraged to actively help technical personnel from other countries. As the active family planning program worked to reduce the population growth rate from 3% in 1963 to 2% in 1973, it became a model for other developing countries and many thousands of public health workers from Asian and other "developing" countries were trained in Taiwan - - in spite of the lack of an official government policy supporting family planning.

It was in such a complex interaction pattern that the Taiwan family planning program evolved. Although to a Western outlook much of what occurred might have seemed schizophrenic, to those truly steeped in local tradition, the political milieu often was described as a rather normal stage of dynamic equilibrium. Such equilibrium was not easily maintained as the traditional program began to go more public and particularly when it went beyond health services to the broader arena of in-school population education.¹

This case study of the chronological evolution of Taiwan's first population education approach in the classroom deals with some of the cultural, bureaucratic and political obstacles to change during the period from April 1969 to August 1971 in Taiwan.

The process about to be described took about a year and half. The result was a 45-page supplementary text distributed to all 400,000 graduating junior high, senior high, and vocational school students throughout Taiwan in April 1971. In candor, it should be said that it took a year and a half to finish this job not only due to the careful planning and integration of study findings into the text or to the pretesting among those students for whom it was intended or to the evaluation of changes in knowledge and

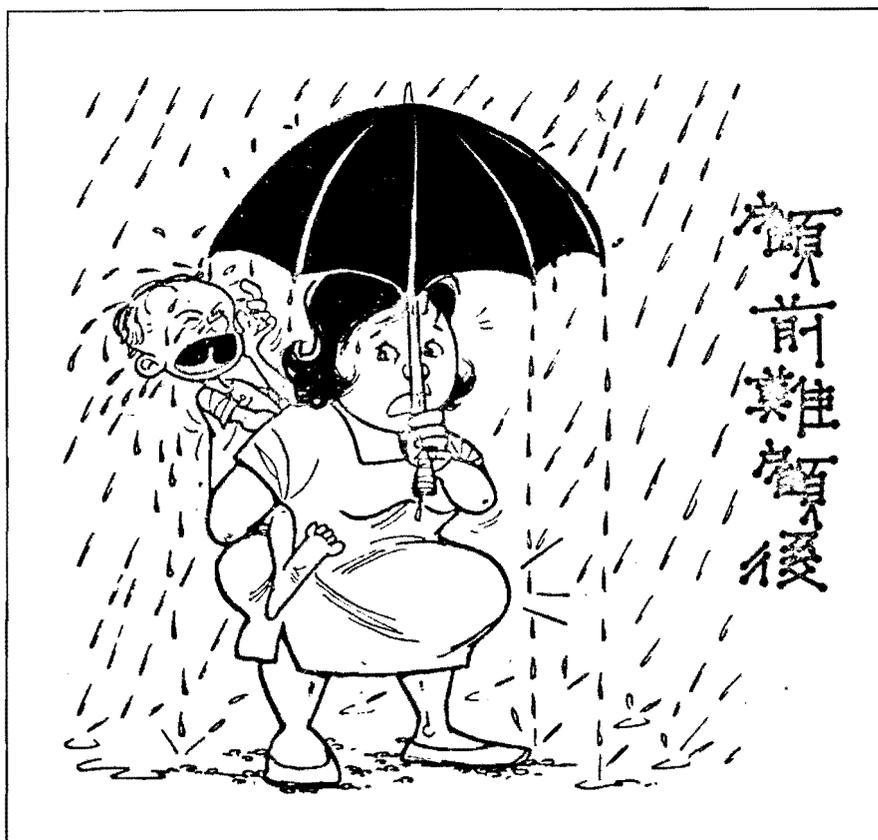
attitude levels among students purportedly induced by the text. The major reason for the long period of time taken to produce the slender volume discussed in this case study was quite uncomplicated. As stated in the English translation of the text which was printed for distribution abroad, the major problem was that "it was the first time such a publication had been attempted in Taiwan...and nearly everybody who would have any responsibility was afraid of getting into trouble."¹

Such fears were understandable. Precedents were hard to come by. Although there were many active family planning programs throughout the world by 1969 when this project began (perhaps 40 national programs covering about 70% of the population of developing countries), those using the school systems to help curb population growth were few indeed. Although western scholarly journals exhibited a great deal of interest in the subject and it had many proponents, particularly among American educators involved in (or hoping to launch a mid-career transition to) the international circuit, relatively little in the way of production or distribution of such educational materials had taken place in the developing countries. Considering that public health agencies and teacher training institutions had a good deal of experience in developing curricula, teacher training, and teaching materials for integrating communicable disease and health and hygiene preventive concepts into Taiwan's schools, the absence in the population area is notable.

The colorfully illustrated booklet, "Paste Your Umbrella Before the Rain" which ultimately was produced contained information on world population trends, their consequences for Taiwan as a whole and for the individual living there. Its major focus, however, was on the supposed interests of graduating students: the importance to the individual of going on to

higher education, to get a better job, of later marriage, of postponing having children, having fewer of them and caring for them well, and spacing between births. The notion of taking control of one's future by careful planning of one's total life was stressed (see Figure 1).

It took Taiwan a relatively long time to come to the realization that the birth rates would not just keep on dropping as they had over the previous recent years. It was not sufficient to expend all the program's staff time and funds on an audience of only married couples. Sometime, about 1967, the program "woke up with a shock" as the author of the English edition of the booklet pointed out in the Preface. "Because of a baby boom back in the early 50's, the marriageable young women in 1972 were going to be 60% more than in 1968. They would be highly fertile and, by Chinese custom, would mostly have babies before they had been married a year."¹ Program analysis of ongoing research also had begun to show by 1968 that the organized family planning program had had little effect on the younger married women (e.g., ages 25-29) and, indeed that the fertility of the married women less than 25 years old had risen over the past decade. And in spite of the efforts of the program, the so-called preferred number of children a married woman wanted had dropped in five years only from 4 to 3.8, with a preference for two sons.² It only seemed logical on the basis of research findings for the family planning program to review its audiences and to determine how best to meet needs and consider creating demand for services by more and varied educational inputs. High school students were easily identified as a potential audience for the proposed educational approaches. As logical a target group as they seemed in terms of applied research findings, however, reaching them turned out to be an immense and elaborate undertaking as our case study will illustrate.



SOURCE: *Paste Your Umbrella Before the Rain*, Taiwan, 1971.

Figure 1. Not easy to care for both.

IDENTIFYING THE NEED

The Chinese have a saying that "a thousand mile journey begins with a single step." This is the story of how Taiwan took that first step toward reaching young, unmarried students and helping them become more aware of the advantages of a planned, smaller family.

1959-1961. In 1959 the Governor of Taiwan agreed to set up pre-pregnancy health (PPH) services at local government health stations. By 1963, 120 of the 361 local health stations had added full time PPH workers to offer family planning services through home visiting. In 1961 the Taiwan Population Studies Center was established as a research unit. It later became responsible for both research and action programs as the Family Planning Institute (FPI) under the auspices of the Taiwan Provincial Health Department.

1961-Early 1968. The present family planning service program started from the PPH service program at local health stations and the classic Taichung City experiment in 1962³ which was extended island-wide in 1964. As the program developed it became increasingly obvious to program implementors and Provincial Public Health administrators that, even with a staff of 360 lay workers to recruit clients, provision of contraceptive services alone could not do the job of reducing the population growth rate from 3 per cent to 2 per cent by the end of 1973, and sustain this reduction. Other sectors had to cooperate to help spread the word about services and, more importantly, to begin challenging traditional ideas about completed family size. A Population Policy Study Committee of the Ministry of the Interior worked from 1964 to 1966 on a set of regulations governing the implementation of family planning and an outline of population policy. When these regulations were officially adopted, in May 1968, the population program began to

emerge from the health services, and become more of an obvious national problem, calling for cooperation from many agencies for solution.

Early 1968. From early 1968, members of the Taiwan Provincial Family Planning Institute, resident foreign advisors of the Population Council (a U.S. based international educational foundation) and the UNICEF Representative had been discussing ways in which family planning could be supported by agencies other than health. One approach could be through the School Health Committee of the Ministry of Education (MOE). In fact, Dr. S.P. Lee then Chairman of the Health Education department of National Taiwan Normal University did manage to obtain MOE approval for two chapters on family life and reproductive physiology, both of which appeared in junior high school health texts starting in 1968. No attempt, however, was made to produce a separate text on population and family planning, or to integrate these materials into other subjects, due to lack of guidelines from the National Government defining the support required from the Ministry of Education at the National level, the Taiwan Education Department (PED) at the Provincial level and the Taipei Bureau of Education, at the Taipei City level.

Mid 1968. The Population Council resident education advisor was requested by the Taiwan Provincial Institute of Family Planning to collect available materials on population education in India and Pakistan where he was scheduled to consult. He did so and also visited with faculty at Teachers College, Columbia University to review progress in population education to date. The clearest finding was that there were few materials adaptable to Taiwan and that most of the literature consisted of academic discussion of the pros and cons of various approaches.

Late 1968. UNICEF agreed to provide vehicles and motorcycles for the Taiwan family planning program as the United Nations policy toward family planning became more favorable and local support clearer. To date the U.N., particularly WHO, had ducked the issue in Taiwan.

April 1969. The National Government announced an official national policy supporting the control of population growth. This announcement theoretically opened the door for broadening the family planning education approach beyond home visiting and mass media to the school system.

May-July 1969. In early May, the visit of researchers (University of Michigan Population Studies Center) helped pinpoint more clearly the extent of the increasing numbers of younger women in Taiwan. By 1972 the number of women ages 20-24 would increase by 60 per cent over 1968's number (from 460,000 to 750,000). If their age-specific fertility rates remained the same, Taiwan's birth rate would soar.

This reason for reaching young women was tied in with a list of suggestions for program actions to be taken by all public agencies, prepared by the Family Planning Institute (FPI) and Population Council staff and submitted to then Minister of Finance, K.T. Li. The list indicated the need to integrate "population education into the regular curriculum of the secondary schools." This list contained suggestions for the broad spectrum of agencies in government to begin to help curb population growth.

The logical approach would have been to get the National Ministry of Education involved in providing a population textbook. The problem was that to get a textbook cleared would take years. Revisions of the textbook system are on certain schedules, and go through intensive and long-time screening. Furthermore, the Ministry of Education is often being petitioned by various groups to introduce textbooks on other matters. Their official

view as presented on several occasions was that they were already overworked. "If population is added, then traffic safety, tax collection, etc., will have to be added for other government agencies." Accordingly, it was decided to try a "supplementary" text, which would come under the auspices of the Taiwan Provincial Education department. An outline of a population education booklet with an estimated budget was prepared and discussed with the local UNICEF representative in Taipei. An informal request was made to him for US\$25,000 (equivalent NT\$) for printing a booklet on the value of having a small family, to be used as supplementary teaching material or as part of a regular course in the high schools. The submission of this request was preceded by several meetings with the UNICEF representative wherein it was decided that the booklet was in line with UNICEF's function, and a tangible project which was more likely to get UNICEF funding than were vague discussions of ways to integrate teaching into the school curriculum. It also was a routine project as a supplementary booklet and the decision to approve it was within the discretion of the local UNICEF representative's powers (subject to approval at Bangkok Regional Headquarters). Perhaps, as importantly, the Government was behind in its production of supplementary texts under UNESCO technical guidance and UNICEF subsidy of paper and ink for printing. A booklet of this sort would make up for as many as eight booklets in the UNESCO series. Furthermore, there was pressure applied by the former UNICEF Regional Representative who now served a similar regional role with the Population Council, advising the family planning program in Taiwan. The UNICEF representative was agreeable and enthusiastic; and the Population Council and FPI staff committed themselves to doing the job of writing and editing the proposed booklet.

September 1969. The first meeting of the inter-agency committee to implement the suggestions to involve all government agencies was called at the National level by the Population Division of the Ministry of Interior and held in the National Capital, Taipei. In addition to the Education Ministry, there were staff attending from the Ministry of Interior, the Council for International Economic Cooperation and Development (CIECD), the Executive Yuan, the National Defense Ministry, the Ministry of Communications, the Ministry of Finance, the Provincial Health Department, the Taipei City Health Bureau, and the Taiwan Family Planning Institute. It was clear from the tone of the meeting that the related agencies were expected to take some action. The list of suggestions mentioned earlier was presented by Finance Minister K.T. Li and discussed and screened for feasibility. Conclusions were issued calling for increased cooperation from various National government agencies, the Province of Taiwan and Taipei City. It was made clear that at both National and Provincial levels, education officials were expected to cooperate. Family Planning Institute staff brought these instructions to the attention of officials of the Taiwan Provincial Education Department who were responsible for reviewing and publishing supplementary texts for all schools in the Province of Taiwan.

DECIDING TO DO IT AND GETTING THE MONEY

Not all such interagency meetings bring immediate results. Coordination is a major problem and not easily achieved. Follow-up often is ignored. This one was an exception as the calendar of events which follows demonstrates.

October 1969. The Health Commissioner agreed to do the booklet on the advantages of the small family with the provision that: 1) UNICEF

would fund; 2) the Government policy was favorable; 3) the Population Council would do an English language outline in consultation with Family Planning Institute personnel. He also agreed to call on the Provincial Commissioner of Education to get his agreement to approve the use of the booklet in the schools.

November 1969. UNICEF felt that it was essential to have UNESCO backing in this project since UNESCO's official function was to provide technical inputs into the formal education system. The result was an agreement that UNICEF was to fund the booklet as proposed, and that UNESCO would be involved in any longer-term planning for the school curriculum. Their full agreement was conveyed to the Provincial Education Department officials with a request that planning begin.

DOING THE JOB

December 1969/January 1970. a) Procedure: Family Planning Institute and Population Council personnel met with Taiwan Provincial Health Department officials informally over tea and obtained the PED's preliminary agreement to what the outline of such a booklet might be if it were to be considered for use in Taiwan. It was explained that, due to lack of funds, the booklet might have to be provided only to female students. It was informally agreed that, functionally, the Population Council advisor would help coordinate the project among the various agencies since nobody else had authority to move among agencies at various Governmental agencies. Also he and his staff were to help with an initial booklet outline in English which would take advantage of work done elsewhere which might fit Taiwan's particular cultural setting. The Family Planning Institute would rewrite and modify the booklet in Chinese; and the Provincial Education Department would adapt it to the high school level.

b) Choice of Method: It became clear at this point that the booklet was more acceptable than any other approach since it would not have to go through "Formal" clearance with the National-level Ministry of Education in Taipei as the booklet would not be officially "required" in the standard curriculum. Such clearance was estimated to take at least 2 years. There also was little evidence of interest in working on population education activities at the Ministry.

c) Content: It also became clear after the second meeting that the key decision-maker was the Executive Secretary of the Provincial Education Department and that he felt that Sex Education or mention of contraceptives was NOT suitable for high school students. Furthermore, he did not want to produce a booklet which was too "western" in its approach. The Commissioner of Education, however, had agreed to do the project, as he indicated, and he would try to adapt the draft prepared by the Institute and "foreign" advisor. After meeting with the Executive Secretary, the booklet was discussed in greater detail with the Chief of the Provincial Education Department School Health Committee (which linked public health and school health activities and had produced booklets in cooperation with UNICEF before) under whose jurisdiction the project fell.

The lesson learned from these preliminary sessions was that the Provincial Education Department Executive Secretary wanted reassurance of the Government's firm backing and that there would be no unnecessary foreign influence. The Family Planning Institute provided him with the September 1969 recommendations of the Executive Yuan that more Government agencies, including Education, become involved in population activities. It also provided reassurance as to the good intentions and technical expertise of the Population Council advisor.

He was neither an advocate of sex education nor a subversive--and acting at the request of the Government.

February/March 1970. The population education approach adopted for the draft booklet included: a basic introduction to population dynamics; a basic understanding of human reproduction; an understanding of health problems associated with childbearing; an appreciation of the relationship between quality of life for a family and family size; an appreciation of the significance of population growth for social and economic development; a familiarity with the population problem in Taiwan. The first rough draft was prepared in English by Population Council staff.

April 1970. Funding possibilities now that material was real were increasing. It was decided to try to provide the booklet to all graduating high school, junior high and junior college students, including both males and females. To do so 400,000 copies would be needed in 1971. The UNICEF contribution was therefore matched by funds from the Family Planning Institute. It was decided to concentrate mainly on the small family ideal, and to tie this in with development and rising standard of life for the family. A primary resource was a booklet prepared first in 1963 and revised in 1968 which was used to train field workers to talk with women. This booklet spoke very simply of planning for the future, the health of mothers and children, and family economics.

The first English draft was reviewed by twelve health educators from the Family Planning Institute and the Taiwan Provincial Health Department who suggested that the material be reorganized, factual references be added, local examples be amplified and the text be made more consistent with Taiwanese culture. The emphasis remained on the concept of planning--to

get more education, to get a better job, to marry only when ready, and to plan for a desired number of children.

June/July 1970. A quick translation of the draft booklet was prepared and pretested with 24 teachers and 80 students. Reactions were generally favorable but it seemed that there ought to be more emphasis on jobs and family responsibilities for those not planning to attend college. There also needed to be more pictures and practical examples.

A meeting of UNICEF, PED, PHD and PC officials was held to get approval to proceed and to settle the question of funding and sponsorship. It was determined that the Family Planning Institute would cover the cost of writing, printing and delivery; that UNICEF would provide paper and ink; the PED would provide a mailing list of schools and specify the number of copies required to be sent; and that PHD would act as publisher. The PED Executive Secretary was pleased to see the Chinese version and that the pretest had indicated interest among readers. It was agreed that a professional writer should be hired to simplify the Chinese and to rewrite the book so that it would be more in line with government education policy which was to encourage technical and vocational training. Also items such as the "advantage of working and postponing marriage to build up a dowry" were to be excluded since they were against official government policy--however, realistic they might be.

One of the serious disadvantages to the option of producing a supplementary booklet was that the contents would not be covered in the standard curriculum exams. In a system which implicitly, if not explicitly, stresses rote learning and feedback of school text materials and teacher lectures, a "supplemental" item often is ignored. In other words, if it was not required reading or part of the exam, it probably would not be read.

The question was "How to be sure students read the book?" The answer was that FPI provided funds for a national essay contest to promote its reading. In addition a Teacher's Guide was developed to help the teachers use the materials.

At a subsequent working meeting, the length of the text, the number of pictures, the inclusion of charts, the size of the book, the schedule for writing and printing, and an estimated budget were worked out.

August 1970. The professionally written draft was produced and sent to the PED and FPI for review.

September 1970. A second pretest among 18 teachers and 60 students was held and the results obtained and analyzed by October 1. A dozen cartoon pictures were produced to be integrated into the text to liven up the pictorial presentation (see Figure 2).

October 1970. A meeting of PC, UNICEF, PED, PHD and the writer was held to secure final approval of the draft text and the pictorial material. Because of pre-test comments by students and teachers it was decided to include information as to the location of family planning services in the community as a final note in the text. PED was satisfied with this version and turned the project over to PHD, the FPI and UNICEF.

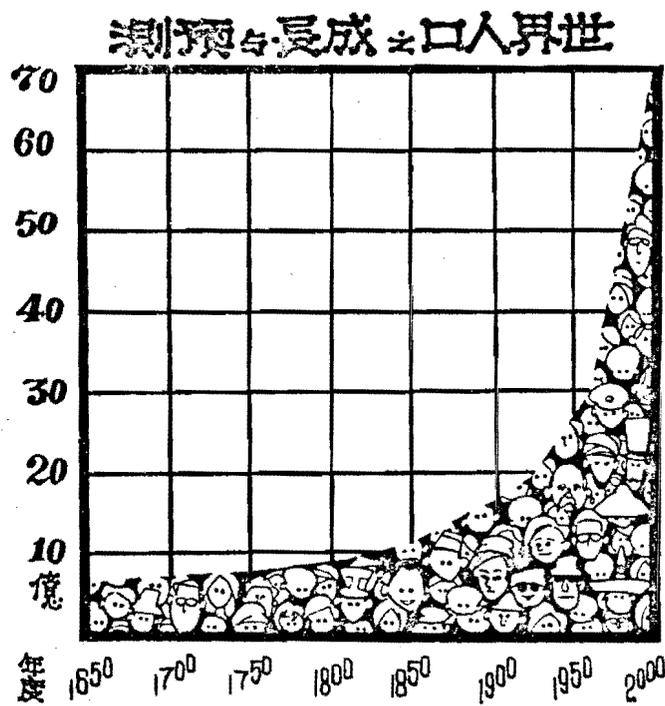
November 1970. Minor revisions of the drawings were made, a population pyramid and a growth curve were added, and the book was sent through UNICEF to the printer (see Figure 3). An English retranslation also was completed to distribute abroad to educational leaders who had been thinking about doing something like this but had not gotten started as yet.

December 1970. The first page proofs were received from the printer and minor revisions were made. Copies of the English version were mailed



SOURCE: *Paste Your Umbrella Before the Rain*, Taiwan, 1971.

Figure 2. Two are enough?



SOURCE: *Paste Your Umbrella Before the Rain*, Taiwan, 1971.

NOTE: Numbers of people are measured by "Yi" or 100,000,000. Ten yi equals one billion.

Figure 3. Projection of world population growth.

to overseas consultants for comment (and, of course, to let others know that Taiwan preferred to do more than talk about the subject as most other countries were confined to doing to date).

Early 1971. The booklets were printed and shipped out on schedule via a commercial forwarding company which attended to the shipping for a cost of about \$2,500. The plan of distribution was carefully worked out and the Taiwan Provincial Education Department supplied a list of schools and the number of copies to be sent to each. The Department also sent out a letter to each school with detailed instructions about distribution to be certain that the books would not remain unused in the school storage rooms.

The final cost was about U.S. 7 cents per copy, including the cost of paper, ink, printing, text preparation, distribution, and contest prizes.

From a folk saying believed to be of Sung Dynasty origin, came the booklet's title: "Paste Your Umbrella Before the Rain." One must always be prepared for what will happen next.

Late Spring 1971. What we were not prepared for was an error discovered on a single table in the booklet which appeared to indicate that Taiwan was a country (with which the Republic of China's National Government certainly does not agree). The Chinese National Security Administration (if its title can be so translated) insisted that the table had to be corrected. A similar error also was noted in the Teacher's Guide. All 400,000 books had to be collected from schools around the island, corrected, and then redistributed--at no small cost.

INTERPRETING THE RESEARCH

April 1971. The revised booklets were out in the schools--finally. To get this to happen again the next year, there had to be positive findings

that the booklet made a difference at least in awareness and knowledge and, hopefully, attitude among the students. The Teacher's Guide already was not proving successful. Its orientation was too directed to providing more information on population demographic considerations: population and age structure, urbanization growth rates, population doubling time, dependency burden, density and policies. The problem was that it did not serve as a guide to the teacher as to how to use the "Paste Your Umbrella Before the Rain" booklet.

Accordingly, a pre-survey of 1,277 students who were to receive the supplementary booklet, and who were selected from twelve representative schools, took place in February 1971⁴. This survey was done before distribution of "Paste Your Umbrella Before the Rain."

May 1971. After distribution of the text, another survey was taken in May to determine the short-term impact on the students. The 1,277 students who were in the pre-survey were re-interviewed. In addition, 174 students who did not receive the booklet were interviewed (to separate the effect of the booklet) as were an additional 511 students who were not part of the pre-survey (to control for pre-survey exposure). Results of the pre and post survey questions dealing with ideal number of children (see Table 1) indicated a slightly lower ideal number of children (2.8 versus 3.1) and of sons (1.6 versus 1.8) among students after reading the booklet. Knowledge about population problems was measured by a series of eleven true or false questions and there was considerable improvement, with ability to answer questions correctly rising from 76 to 82%. Ranking of Government priorities among problems and programs also saw population growth move from sixth before the booklet to first afterwards. The percentage of students who ranked population first, second, or third in priority increased from 38% before

reading the text to 58% after. There are, of course, difficulties in having adequate controls for all potentially influencing variables including the passage of time and the surveys themselves. Perhaps, more likely, there is the possibility of acquiescence in responses to what the students think that the surveyor wanted to know. Nevertheless there was positive feedback and ample information collected for needed revisions in the booklet.

TABLE 1. Pre and Post Survey of Ideal Number of Children and Sons

| | <u>Pre-Survey</u> | <u>Post-Survey</u> | | <u>Control</u> |
|----------------------|----------------------------|----------------------------|-------------------------------|---------------------------|
| | <u>Readers</u> (N=1277) | <u>Readers</u> (N=1277) | <u>Non-Readers</u> (N=174) | <u>Readers</u> (N=511) |
| IDEAL NO CHILDREN | 3.1 | 2.8 | 3.1 | 2.8 |
| IDEAL NO. SONS | 1.8 | 1.6 | 1.8 | 1.6 |

Source: Annual Report, Taiwan Provincial Institute of Family Planning, p. 16, 1971.

August 1971. The post-survey conducted in late May was reported in early August to the appropriate governmental agency staff. The various agencies agreed to fund the booklet again. It has continued to be revised and re-issued now for more than a half-dozen editions and several million students even though the Population Council and UNICEF have long departed, the latter due to political changes at the United Nations and the former perhaps due to its assessment that its advisory services were needed more elsewhere.

COMMENTARY

1. If large-scale national program action is desired, then research findings need to be translated into a format that program administrators can understand. More importantly in this case, that the public can understand. Synthesizing a variety of research findings into educational objectives and content for a printed booklet requires a working team effort. At a minimum, a linker between researchers and program staff is necessary as well as a skilled interpreter (in this case both writer and editor) to translate for the public. These research utilization "matchmakers" also need to involve the public in the preparation of the product, using as a minimum pretesting and audience response surveys. Under ideal circumstances, this public ought to be collaborators in the development of the product. In retrospect, this project's understanding of its audience's interests would have been strengthened had the students been involved more. Given the considerable bureaucratic obstacles and the time factor existing then, it is doubtful that such involvement could have been managed easily. Pretesting did make a major contribution though (see #2 following).

2. In a practical program, applied research can be useful at many operational stages: in audience surveys to determine public interests, needs, and wants, in pre-testing of materials to fit them more to these needs, and in evaluation of whether these needs are met by the finished product. Pre-testing the early draft booklet made a major difference in alerting writers and planners to what ought to be said and how to say it. Both program and research staff need to begin early to share ideas, though, if it is to be accomplished.

3. Knowing that a product or innovation has been tried elsewhere at least identifies the precedent. In reality, however, ethnocentricity sometimes demands that the wheel be reinvented again. A wide original inventor or innovator will forget that he held the patent on the idea and take joy in seeing others assimilate the innovation as their very own idea.

4. It often is not possible to isolate and deal with a single dimension or single barrier to getting research utilized. Cultural, bureaucratic and political obstacles to getting knowledge into action are in such a state of dynamic equilibrium that acting upon one often necessarily throws the others out of balance. An accurate diagnosis of the forces restraining or facilitating research utilization is needed much in the same way as the kind of "educational" diagnosis Lewin suggests.⁵

5. If various levels of governmental and/or non-governmental agencies must be involved to successfully implement a program based on research findings, then linkage between agencies is essential. Persons functioning within the agencies and partially outside sometimes may serve as linkers. Occasionally foreigners in consultative or resident advisory roles have been used in linker capacities as in this case. If, however, foreign technical assistance is provided either implicitly or explicitly for linkage either between research and applied program action or among various agencies, then a low profile is called for.

6. Moving beyond public health-centered family planning to other agencies was difficult. No field is more ethnocentric than public health. Sometimes public health agencies (just as individuals) need to practice taking on the role of the other public agencies. Such role-taking may facilitate the understanding of the meaningfulness of survey findings and data to others. Agencies, just as people, usually will act in their own self interest, if

they are aware of how such findings can affect them and their relationship with the public.

7. In retrospect, not enough was done to involve the National Ministry of Education in planning and this reflected itself in a lack of future action from this agency. The strongly ethnocentric views of this agency might have been capitalized on in some ways had there been more interaction in the booklet planning.

SUGGESTIONS FOR DISCUSSION

1. What kind of research do you think ought to be done on son preference? Why might there be difficulty in integrating findings into action programs?
2. What are the advantages to getting research applied of having a person involved in a project who can move freely among the various kinds and hierarchical levels of governmental agencies? What are the disadvantages?
3. What were the specific cultural barriers to implementation of this project? Bureaucratic barriers? Political barriers? What are similar about these three categories of barriers?
4. The Taiwan family planning program had a long-time history of disseminating results of its work to other countries.⁶ To what extent may this have influenced implementation of this project?
5. Getting population education out of the exclusive grasp of public health agencies and into other social action programs was a difficult task in Taiwan. To what extent are there similar problems in the United States in community health education? Do public health institutions sometimes hamper this branching out? Why?
6. "Population education" has had many connotations for administrators. It was vital to define just what the educational objectives of "Paste Your Umbrella Before the Rain" were and the content to carry these out.

This specificity was needed for political reasons--to distinguish "population education" from "sex education" which had been linked with Communist movements. Are there similar backlash reactions to public health campaigns in the U.S.? Why? To what extent is it health education's fault?

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