

EXECUTIVE SUMMARY
OF
PARTICIPANT FEEDBACK

ESSO FAMILY MATH
Year 3
(2002-2003)

EXECUTIVE SUMMARY

TRAINING WORKSHOPS

During 2002-03, the Esso Family Math staff delivered five training workshops. The purpose of the training was to prepare volunteers to facilitate the Family Math programs planned for the current year. The “Early Years” Workshops consisted of a one-day session while the “2 – 5 Years” Workshops were held over one full day and an evening. A total of 136 individuals participated as follows:

| <i>Training Type</i> | <i>B.Ed. Students</i> | <i>College Students</i> | <i>Teachers</i> | <i>Community Reps</i> | <i>Others</i> | <i>Total Participants</i> |
|----------------------|-----------------------|-------------------------|-----------------|-----------------------|---------------|---------------------------|
| <i>Early Years</i> | 12 | 6 | 5 | 45 | 17 | 85 |
| <i>2 – 5 Years</i> | 20 | 9 | 8 | 6 | 8 | 51 |
| <i>Totals</i> | 32 | 15 | 13 | 51 | 25 | 136 |

At the end of the training workshops, participants were asked to complete a two-page questionnaire to provide evaluative feedback. Seven individuals who work in an institutional setting did not participate due to the confidential nature of their work. The

responses of the remaining 129 individuals are summarized below. See pages 17 – 41 for the actual feedback collected at each training workshop.

Most university students indicated that their reason for attending the training was to either gain experience working with families or to participate in a program that would help them become more effective educators. Several teachers reported that they had heard good things about the program and wanted to learn more. Teachers also expressed an interest in working with families. Many community representatives attended the training in preparation for delivery of Family Math programs at their place of employment (i.e., Ontario Early Years Centres).

Overall, the training was extremely well received with 55 participants reporting that the training met their expectations and 74 participants reporting that the training exceeded their expectations. There were no individuals who indicated that the training failed to meet their expectations.

While participants reported many helpful aspects of the training, the hands-on approach, the demonstrations and explanations, and the excellent resources /materials were mentioned most frequently. Participants also commented on how well the training was organized, and the expertise and enthusiasm of the trainers.

There were fewer aspects of training that were noted as needing change. The most frequently recommended changes were to refrain from going through each and every activity (Early Years) and decrease the instruction time on Saturday (2 - 5 Years).

The Family Math activities received high praise from almost all participants. They were described as excellent, fun, simple to implement and helpful in making real world connections to mathematics.

The large majority of participants (83%) reported that after attending the training they felt prepared to facilitate Family Math sessions. When asked what would help them feel even more prepared, they responded that they would have liked more time to practice and plan with their group and they would also have benefited from an opportunity to observe (either in person or via video) a Family Math session.

The overall success of the training was evident from the participants' additional comments made at the end of the questionnaires. These comments were overwhelmingly favorable in terms of both the Family Math Program and the Training Workshops. Participants were obviously appreciative of the Esso team's efforts to put forth a well organized and effective program. Perhaps most apparent to the participants was the team's enthusiasm for mathematics and for Family Math in particular.

FAMILY SESSIONS

During the 2002-2003 school year, the Esso Family Math Program was offered at seven London locations as well as at sites in Ingersoll, Kettle and Stony Point, St. Thomas, Tillsonburg, Wallaceburg and Woodstock. Ten of the thirteen sites delivered the Early

Years Program while a total of nine sites delivered the 2 - 5 Years Program. A total of approximately 164 families (including over 180 children) took part in the programs, attending a Family Math session one night a week, usually for six weeks. Across all thirteen sites, program delivery was the responsibility of 19 teacher leaders and approximately 129 teaching volunteers.

Teacher Leader/Teaching Volunteers Feedback

Throughout the fall and winter, feedback regarding the family sessions was collected from both teacher leaders and teaching volunteers. On the final night of the program at each site, these individuals were asked to complete a questionnaire regarding their experiences. As well, together as a group, they completed a questionnaire that encouraged discussion of the overall effectiveness of their particular program. The data collected is detailed on pages 42 – 66 and summarized below.

Teacher Leaders

During the year, thirteen teacher leaders completed feedback questionnaires. Nine of these individuals were leading programs for the first time while the remaining four had taken the role of teacher leader in previous programs. All of those who had attended Family Math training recently, reported that it had been effective in preparing them for program delivery.

All leaders indicated that they shared their leadership responsibilities with the teaching volunteers. They described it as a “team effort” with the teaching volunteers playing a

very important role in each session; they displayed “initiative and flexibility” and “had a genuine interest in improving the families’ math skills”. The teacher leaders reported that it was this dedication by the teaching volunteers that made the Family Math experience so positive and rewarding for everyone involved.

The leaders suggested some changes in regards to program delivery. One Early Years leader indicated that the program should be delivered in two groups of four sessions with a break in between. Another suggested that sessions be held on weekends rather than week nights. They also stated that new activities could be added to the program. The 2 – 5 Years leaders suggested giving families the game instructions to take home and having more explicit instructions for leaders to use when discussing “Where’s the Math”.

Overall, the teacher leaders described their Family Math experiences as “excellent” and “fantastic”. Many leaders plan to use their Family Math facilitation skills in their own classrooms within the school system and in programming within their community.

Teaching Volunteers

A total of 46 teaching volunteers, the large majority participating in Family Math for the first time, completed questionnaires. Many of these individuals (50%) were attending a university education program at the time.

These teaching volunteers spoke positively about the training they received prior to their participation in family sessions. They felt it was “excellent”, “very thorough” and “good

preparation”. However, a few individuals did feel that the training was too lengthy.

It was apparent that the teaching volunteers filled many roles in the delivery of the Family Math Program. Their primary responsibilities included: leading activities, reading stories, working one-on-one with families, and helping with the coordination of meals and materials. The teaching volunteers reported overwhelmingly that this was a positive learning experience for them. As one teacher education student stated, “it was wonderful – I gained experience communicating with families and I am now more comfortable with math instruction”.

When asked about the role their teacher leader played in program delivery, most of the volunteers responded with great enthusiasm. While at one site there were “issues in this area” and the leader was unable to complete the program, other teacher leaders were described as “amazing”, “extremely organized”, “supportive and approachable” and “very knowledgeable”. It was apparent that the teaching volunteers, especially those training to become teachers, appreciated the opportunity to work with leaders who were excellent mentors.

The teaching volunteers suggested several changes that may improve future Family Math programs. The most frequently suggested changes for the Early Years component was to remove the “Rock” story and to also reduce the number of family sessions in each program. The 2 – 5 Years teaching volunteers suggested that activities be explained to families on an individual basis and that families should be contacted between sessions to encourage them to attend.

Overall, the volunteers described their Family Math experiences as “awesome” and “very positive” and as one individual stated, “it widened my own view of math and I learned how to encourage mathematical thinking”. Many teaching volunteers plan to use their Family Math facilitation skills in future Family Math programs as well as in their own classrooms once they begin their teaching careers.

Group

Together, the leader and teaching volunteers of each Family Math group discussed the overall effectiveness of their program and completed a group questionnaire. Feedback was received from seven Early Years programs and seven 2 – 5 Years programs.

When asked how families responded to their program, all groups indicated that families participated enthusiastically. At most sites, the sessions proceeded as expected. One Early Years site reported that activities were too easy for some children and there were also behavioral problems. At a 2 – 5 Years site, there were few families enrolled so teaching volunteers were paired with individual families and activities were introduced on a one-to-one basis.

The groups reported many activities that worked well, in addition to several activities that need change. Both Early Years sites and 2 – 5 Years sites incorporated new activities into their programs.

When asked to rate different aspects of the family sessions, all sites indicated that the location, the meals and the support from the Family Math staff and the community was either good or excellent.

The groups had a great deal of advice for others who may be preparing to deliver Family Math programs. This included: be well organized, have everything set up and ready to go when families arrive, work as a team and be flexible.

The groups were also asked to identify positive and negative factors that affected the outcome of their programs. Positive factors were the comfortable environment, the teamwork, the social time shared over a meal, and the provided resources and materials. Negative factors were too few families or too few volunteers.

Parent Feedback

Feedback was also collected from parents, extended family members and guardians who attended the Family Math sessions with the children. Assisted by a teaching volunteer, an adult from each family completed two questionnaires and a family information sheet. Participation in this research was entirely voluntary. The data collected is detailed on pages 67 – 89 and summarized below. At one site, these questionnaires were replaced by in-depth telephone interviews with the parents over the duration of the program. The resulting case studies are presented on pages 90 - 98.

Questionnaires were completed as follows:

| Questionnaire Type | No. Completed | |
|--------------------------------|---------------|-------------|
| | Early Years | 2 – 5 Years |
| Comments Before Sessions Began | 57 | 48 |
| Comments After Last Session | 56 | 42 |
| Family Information | 49 | 42 |

Early Years

In most cases, questionnaires were completed by the children’s mothers. Only sixteen fathers (33%) participated in the Family Math sessions.

The majority of Early Years parents (80%) indicated that their children live in a two-parent home. English is a second language for some families (10%). The mothers’ education levels were reported to be relatively high with all but seven mothers completing high school. Fifty-two percent (52%) of the mothers have also completed college or university. Similarly, 40% of the fathers have completed college or university and only 23% failed to complete high school.

While some parents reported that math was a very enjoyable school subject for them, many others (51%) stated that they found math “difficult” and “hard to grasp”. Parents decided to attend the Family Math sessions to help their children understand math, and in

some cases, to ensure that their children do not continue to “struggle in school”. Eight-four percent (84%) of the parents expect their children to get at least passing marks in mathematics during their school years.

When asked how they use math in their daily life, most parents indicated that they use math at work and/or at home when taking care of the household finances. All parents reported that they do math activities with their children, mostly involving counting and games. While almost all of the parents said that they are comfortable talking to their children’s teachers, several parents indicated that they are “apprehensive”, “frustrated” and “uncertain” about helping their children with homework.

After attending the Ezzo Family Math sessions, the Early Years parents were very willing to share their opinions of the program. Most of them (93%) had attended at least five of the six sessions.

All parents expressed positive comments about their experiences. They especially enjoyed the “fun way to learn math”. When asked if they would change anything about Family Math, several parents stated that they would like the program to include more sessions. Others suggested that the Early Years program be divided into two or three age groups because of differing developmental levels.

Many parents indicated that they are now using the Family Math activities, such as estimating and patterning, at home. Some parents also reported that they feel “better”

about helping their children with math homework. One parent said that she “did not enjoy helping with math before but things have improved with participation in this program”. Other parents also commented that they feel more at ease talking to their children’s teachers about math.

Many of the Early Years parents were eager to share their new thoughts about math. They realize that “math is everywhere” and they are also more aware of mathematical concepts. As one parent summarized, “I have always thought of math as just numbers and formulas but now I see that geometry, measuring, patterns and especially graphing can be introduced to children at an early age”.

2 – 5 Years

As with parents in the Early Years Program, questionnaires in the 2 – 5 Years Program were most often completed by the children’s mothers. Twenty fathers (48%) participated in the Family Math sessions.

The majority of 2 - 5 Years parents (86%) indicated that their children live in a two-parent home. English is a second language for some families (12%). The mothers’ education levels were reported to be relatively high with all mothers completing high school. Fifty percent (50%) of the mothers have also completed college or university. Similarly, 93% of the fathers have completed high school with 62% also completing college or university.

While several parents reported liking math in school, over 50% of parents expressed negative comments about their math experiences in school. Some found the subject “very challenging”, “stressful”, and “frustrating”. Many decided to attend the Family Math sessions to help improve their children’s math skills. Seventeen percent (17%) of families were approached by school personnel or community representatives to attend.

Sixty-one percent (61%) of the parents expect their children to find mathematics like other school subjects and get at least passing marks during their school years. This is a significant drop from the 84% reported by parents of Early Years children.

When asked how they use math in their daily life, most parents indicated that they use math at work and/or at home when taking care of the household finances. All parents reported that they do math activities with their children at home, mostly involving games and homework. While almost all of the parents said that they are comfortable talking to their children’s teachers, several parents indicated that they “dread” helping their children with math homework as they find it “frustrating” and “difficult”.

After attending the Esso Family Math sessions, the 2 - 5 Years parents were very willing to share their opinions of the program. Most of them (90%) had attended at least five of the six sessions. All parents had positive comments about their experiences. They especially enjoyed the games and the meals. When asked if they would change anything about Family Math, several parents requested that the number of sessions be increased. Others stated that the age span within the 2 – 5 Years Program is too large.

Many parents indicated that they are now using the Family Math games, especially the estimating activities and the calculator, at home. Some parents also reported that they feel “more comfortable now” about helping their children with math homework.

Many of the 2 - 5 Years parents shared their new thoughts about math. They realize that “math is all around us” and “math can be fun”. As one parent concluded, “If you make math fun and approachable, children will find math much easier to learn”.

Concluding Remarks

The Esso Family Math Project has completed another highly successful year. Many more individuals have been trained to deliver Family Math programming and many new sites are providing programs for the families in their areas. As in the past two years, feedback from families and volunteers has been overwhelmingly positive. While there have been some suggestions for change, these recommendations will again assist the Esso Team in adapting and modifying the program to meet the needs of Ontario families.