



Research Report

Behaviorism
Active Role of the Learner in the Learning Process
Cognitive Learning Psychology
Motivation
Parental Involvement

Updated Version of Clint Van Nagel, Ph.D.s Original Report
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Introduction

The **Frog Family Fun-Pack Program (FFP)** is an evidence-based family engagement and academic practice program designed to strengthen foundational literacy and mathematics skills for students in PreK–5. Published by Frog Publications in San Antonio, Florida, FFP provides systematic, self-checking review of 25 essential skills through engaging, game-based practice. The consistent routine, predictable directions, and built-in reinforcement support long-term retention, while the colorful gameboard format increases student motivation and encourages parent participation.

The program combines key features of two long-standing Frog Publications instructional systems—**Drops in the Bucket** and the **Frog System Learning Games**—to deliver an enjoyable 24-week cycle of daily review. Each week, students receive a new FFP game pouch reviewing the same set of skills with fresh questions, enabling repeated practice (retrieval), spaced review, and increased automaticity.

Under the **Every Student Succeeds Act (ESSA, 2015)**, states, districts, and schools must utilize **evidence-based interventions** to strengthen instruction, address learning gaps, and support continuous improvement. FFP aligns directly with ESSA priorities by:

- improving **family engagement** through simple, structured routines
- supporting academic achievement through **retrieval practice, spaced repetition, and frequent feedback**
- increasing student motivation and confidence through **consistent success experiences**
- reinforcing priority grade-level skills aligned to state standards and major assessments
- supporting diverse learners through scaffolded, self-paced practice

The research foundations for FFP are grounded in over six decades of learning science and continue to be validated by contemporary research in behaviorism, cognitive psychology, motivation theory, and family-school partnerships.

ESSA Evidence Alignment Overview

Under ESSA, “evidence-based” interventions fall into four tiers. FFP aligns with ESSA expectations by drawing from:

Tier 4 (Demonstrates a Rationale)

The Frog Family Fun-Pack is rooted in well-established learning science, including:

- Retrieval practice research
- Spaced repetition
- Immediate feedback
- Modeling and think-alouds
- Parental engagement and home-school connections
- Cognitive load theory

Tier 3 & Tier 2 (Promising/Moderate Evidence)

Contemporary studies support the effectiveness of:

- Family engagement on academic outcomes (Henderson & Mapp, 2015; Jaynes, 2018; Mapp & Bergman, 2021)
- Structured, repeated skills practice for literacy and math development
- Game-based learning to increase engagement and effort
- Consistent feedback to improve mastery

FFP is currently undergoing continued internal research aligned with ESSA's evidence requirements and includes plans for randomized implementation, comparison groups, and measurable outcomes.

Research Basis 1: Applied Behavior Analysis & Reinforcement (Behaviorism)

FFP incorporates foundational principles of behavioral learning that continue to be validated in modern education. Reinforcement, immediate feedback, and structured routines contribute to efficient skill acquisition.

Key Modern Research Connections (2015–2024)

- Reinforcement systems increase engagement and task persistence (Cook et al., 2018).
- Immediate feedback significantly improves skill mastery (Hattie & Timperley, 2016).
- Spaced and intermittent reinforcement supports durable learning (Roediger & Butler, 2018).

FFP Applications

- Students receive **immediate, corrective feedback** via answer-on-back cards.
 - Positive reinforcement is built into verbal praise, movement along the gameboard, and extra turns.
 - Incorrect answers trigger a structured corrective procedure that promotes persistence and reflection.
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Research Basis 2: Active Role of the Learner

Contemporary learning science emphasizes that learning improves when students are active participants in the process. FFP consistently requires student engagement through hands-on practice, explanation of reasoning, and partner interaction.

Key Modern Research Connections

- Active retrieval improves long-term memory (Karpicke, 2017).
- Student explanation (“think-alouds”) deepens conceptual understanding (Chi, 2018).
- Scaffolded tasks support mastery and confidence (Rosenshine, 2012; Shanahan, 2020).

FFP Applications

- Students answer every question orally and explain how they arrived at their answers.
 - The structured rule system provides predictable routines that increase time on task.
 - Weekly variety maintains engagement while preserving procedural stability.
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Research Basis 3: Cognitive Psychology

Modern cognitive science strongly supports the core design elements of FFP, including automaticity, pattern recognition, consistent practice, and feedback loops.

Key Modern Research Connections

- Retrieval practice improves learning more than re-exposure (Agarwal & Bain, 2019).
- Automaticity is essential for fluency in both literacy and numeracy (National Reading Panel Update, 2021).
- Overlearning (practice beyond initial mastery) increases retention (Soderstrom & Bjork, 2015).

FFP Applications

- Daily practice across 25 essential skills strengthens long-term retention.
 - Students encounter recurring question types that build pattern recognition.
 - The program supports MTSS/RTI frameworks through consistent, self-paced intervention.
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Research Basis 4: Motivation

Motivation significantly influences student achievement. FFP creates a supportive, low-stress, game-based environment that fosters confidence, persistence, and intrinsic motivation.

Key Modern Research Connections

- Students are more motivated when they feel successful (Deci & Ryan, 2017).
- Positive feedback enhances effort and academic risk-taking (Dweck, 2016).
- Game-based learning increases time on task and persistence (Hamari et al., 2019).

FFP Applications

- Students begin at their **independent level**, ensuring early success.
 - Consistent positive language is built into the rules (“You’ll get it next time!”).
 - Game mechanics (turns, shortcuts, movement) naturally motivate persistence.
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Research Basis 5: Family Engagement (ESSA Priority)

ESSA elevates family engagement from “involvement” to **meaningful, two-way partnership**. FFP is uniquely aligned with this requirement by providing simple, structured opportunities for families to directly support academic growth.

Key Modern Research Connections (ESSA-Era)

- Family engagement has a stronger impact on student achievement than most school-based interventions (Jeynes, 2018).
- Consistency between home and school significantly improves learning outcomes (Mapp & Bergman, 2021).
- Programs must be accessible, culturally responsive, and easy for all families to use (Weiss & Mapp, 2019).

FFP Applications

- Directions remain identical across all packs, reducing parent stress.
- Materials are available in English and Spanish for equitable access.
- Parents naturally learn to use positive reinforcement, modeling, and scaffolding.
- The program requires **no school attendance**, enabling participation from families who face logistical barriers.

Product Information (Updated)

Frog Publications' **Family Fun-Pack Program** is published exclusively by Frog Publications, San Antonio, FL. The materials are designed around two core principles supported by decades of learning science:

1. **Students become proficient in what they practice consistently.**
2. **Positive, structured family engagement significantly increases achievement, particularly for underserved students.**

The skills in each FFP set align with college and career-ready standards, major assessments, and state-identified priority competencies. FFP is available in readiness through fifth grade levels, with English and Spanish-supported versions.

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Research Report

Original Research Report

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Research Report Frog Publications *Family Fun-Pack Program*

No Child Left Behind Act

From 1997 to the present, Frog System Learning Games have been used by *every* school adopting the HOSTS (Helping One Child To Succeed) Learning Program, which is **specifically named in the No Child Left Behind Act as an example of an effective program**. Upon their publication in 2002, Family Fun-Packs were added to the HOSTS mentor and teacher training.

In meetings in Washington D. C. in 2003, 2004, and 2005, Federal Department of Education leaders advised Frog Publications Vice-President and other representatives of the Association of Educational Publishers that secondary research IS ACCEPTABLE for programs using materials whose primary research has not yet been completed. DOE leaders at that meeting also said that the Federal Department of Education has NOT refused funding under the No Child Left Behind Act in any such cases.

In accordance with the information given in that meeting with the Federal Department of Education, we are providing, as specified, this report of secondary research. It is the supporting foundation for our primary research underway in conjunction with university staff.

Secondary Research Summary Introduction

The Family Fun-Pack Program (FFP) is a research-based parental involvement, test preparation, and homework program published by Frog Publications, Tampa, FL. It provides systematic self-checking practice and review of 25 skills with built-in reinforcement to promote long-term memory. This systematic daily practice assures that commonly taught and tested skills, vocabulary, and concepts are maintained and strengthened. The practice is formatted as a series of games to increase the likelihood of children and parents' willing and cooperative participation. The same directions are used throughout FFP, so parents do not have to spend valuable time figuring out what to do with the material. They can use that time to give attention to their child as they use FFP materials.

FFP combines the best elements of two other research-based Frog Publications programs into a teacher-friendly and family-friendly program that makes nightly review at home enjoyable and productive. The brief, consistent daily review of essential academic skills (from *Drops in the Bucket*) is combined with the learning and motivational features and easy consistent directions (from *Frog System Learning Games*). The result of that combination is a 24-week program of skill-review games, prepackaged in tough vinyl pouches to save teacher time. Students exchange their FFP game each week for a one that reviews the same 25 skills using different questions and a different colorful gameboard.

The research basis for Family Fun-Packs is a solid body of research that begins in 1957 and continues to the present. A summary of each of the five research bases appears below. Each is followed by specific research findings, citations, and applications in FFP. The foundations of FFP are evidenced in these five areas:

- (1) Applied Behavior Analysis/Behavior Modification/Behaviorism, (2) The Active Role of the Learner in the Learning Process,
- (3) Cognitive Psychology,
- (4) Motivation, and
- (5) Parental Involvement.

Research Basis 1: Applied Behavior Analysis/Behavior Modification/Behaviorism

FFP has a strong research basis in applied behavior analysis/behavior modification/behaviorism. This research demonstrates that behaviors which are reinforced will occur more frequently. The research also demonstrates the powerful effects of schedules of reinforcement on efficient learning. FFP is based on the principles of reinforcement, and spaced practice using effective schedules of reinforcement. These practices have been research-proven in the works of Skinner, Bandura, and many others.

Specific Research Findings, Citations, and Applications

Research Finding: Reinforced behaviors increase in frequency.

Citation: Skinner, 1957; Alberto & Troutman, 1995

Research Application: Each time the student responds correctly to a FFP game question, reinforcement is provided for correct responses in three ways: by seeing the correct answer in large type, getting verbal approval from the parent, and advancing a random number of spaces on the gameboard.

Research Finding: Intermittently reinforced behaviors persist longer than those that are continuously reinforced. Citation: Alberto & Troutman, 1995; Skinner, 1957

Research Application: Three kinds of intermittent reinforcement are provided in FFP games: 1. Extra turns following a correct response, 2. Shortcuts on the gameboard following a correct response, and 3. Being first to reach the end of the game.

Research Finding: Immediate, specific, feedback which provides corrective information for learners promotes learning and increases motivation.

Citation: Clifford, 1990

Research Finding: Feedback, or information about the accuracy or appropriateness of a response, has been consistently linked to student learning.

Citation: Weinert & Helmke, 1995

Research Application: FFP feedback is immediate, specific, corrective, and provides information about the accuracy of each response. When the student answers correctly, he or she immediately sees the correct answer on the back of each question card and hears the parent saying to advance spaces on the gameboard path. When the student answers incorrectly, corrective information is immediately provided as follows: a FFP rule specifies that the student studies the missed question (figures it out, memorizes it, or asks the parent or partner for help), then returns the card to the pack so he or she can get it right when the card surfaces later in the game.

Research Finding: People learn by observing the actions of others. Modeling by others through demonstration and verbal description of thought processes results in increased student achievement.

Research Citation: Ogbu, 1987; Pintrich and Schunk, 1996; Bandura, 1971

Research Application: FFP procedures include two opportunities for modeling. First, the players tell how they selected their answers before turning each card over to reveal the correct answer. Second, each time a student answers incorrectly and is unable to figure out his mistake, the parent or partner explains how to get the correct answer.

Research Basis 2: The Active Role of the Learner in the Learning Process

Research on the active role of the learner in the learning process provides a second research basis for FFP. A preponderance of research evidence validates that active involvement enhances achievement. FFP

consists of self-checking games which actively and continuously involve both the student and the parent in the learning process to facilitate learning.

Specific Research Findings, Citations, and Applications

Research Finding: With instructional scaffolding, learners independently accomplish tasks otherwise beyond their reach.

Research Citation: Rosenshine & Meister, 1992

Research Application: FFP utilizes these important elements of scaffolding: breaking content into manageable pieces, modeling of skills, providing practice with support as needed until the student performs confidently without assistance.

Research Finding: The expectation of being called on results in better preparation, greater retention of information, and greater confidence.

Citation: McDougall & Granby, 1996

Research Application: Students playing FFP games are called on to answer 50%-100% of the questions and to check the answers of those questions answered by the parent or others.

Research Finding: Worked examples with discussion/explanation makes the learning experience especially meaningful for students.

Citation: Chi, Bassok, Lewis, Reimann & Glaser, 1989

Research Application: As FFP games are played, the players are to explain how they derived their answers. That is to say they are to “think out loud.”

Research Finding: When students spend more time on-task *successfully* accomplishing academic tasks, their achievement is higher and they express more positive feelings about themselves and about the subjects in which they are successful.

Research Citation: Fisher, Berliner, Fillby, Marliave, Cohen, and Dishaw, 1980; Bennett, 1978; Rutter, Maughan Mortimer, Ouston & Smith, 1979; Wang, Haertel, Walberg, 1993

Research Application: With FFP practice, students and their parents spend *more time on-task* and less time “getting ready” or “figuring out what to do” because the directions are always the same. Students are not only on-task when using FFP, they are also *successfully* accomplishing their tasks, because the FFP placement is at their independent functioning level.

Research Finding: Learning is influenced by interpersonal relations and communication with others.

Citation: Presidential Task Force on Psychology in Education, 1993

Research Application: FFP promotes positive interactions and communication in the family to result in positive learning outcomes. FFP creates social learning activities in which students can do all the academic work as parents simply check and encourage, or parents and siblings can enjoy playing, too.

Research Finding: Learning is influenced by social interactions.

Research Citation: Johnson & Johnson, 1989; Cohen, 1994; Slavin, 1995; Quin, Johnson, & Johnson, 1995; O'Donnell & Dansereau, 1992

Research Application: FFP promotes positive family interaction by eliminating many causes of “homework friction” as academic skills are practiced.

Research Finding: Hands-on activities and variety promote learner interest.

Citation: Zahorik, 1996

Research Application: FFP games provide hands-on activity and variety. Each game includes a variety of different types of questions covering twenty-five different academic skills. Every child gets a new and differently themed gameboard each week. Only the rules remain the same as the students use different Fun-Packs each week.

Research Finding: Increase of student engagement results in improved student achievement.

Citation: Wang, Haertel, & Walberg, 1993

Research Application: Students find FFP practice more engaging than many other homework assignments for at least three reasons: 1. Students perceive them as “fun games” instead of “work to do.” 2. Students receive a new colorful FFP gameboard each week. 3. Surprises such as winning extra turns (and getting to do more work) or landing on shortcuts provide extra reinforcement for correct responses. 4. The FFP games are played in a positive atmosphere with other people instead of alone. 5. The self-checking feature provides immediate feedback.

Research Basis 3: Cognitive Psychology

Cognitive research focuses on internal mental processes that influence how students make sense of information and the world in which they live. It includes the processes learners use to gather, organize, store and express information; the ways people perceive and think, and the influence of these factors on learning. Areas of cognitive research which are utilized in FFP games include memory, learning efficiency, chunking, automaticity, attention, perception, rehearsal, and metacognition. Application of these cognitive learning factors in conjunction with the behavioristic and motivational factors create a synergistic effect.

Specific Research Findings, Citations, and Applications

Research Finding: Automaticity results from repeated successful practice. As automaticity develops, students perform tasks with less effort in less time. Eventually they are able to perform the process with little thought or effort.

Research Citation: LaBerge & Samuels, 1974; Anderson 1995; Gagne, Yekovich, & Yekovich, 1993

Research Application: FFP provides repeated successful practice to develop automaticity and patterns for success with basic skills and their applications. FFP includes many areas where automaticity is essential for further progress, such as mastering math algorithms, decoding words, understanding word meanings, using standard language forms, fluency with basic math facts and math vocabulary, and application of math processes and concepts to everyday problem-solving.

Research Finding: Facility with procedural skills (such as adding large numbers, converting fractions to decimals, using correct punctuation and grammar, applying phonics rules to decode words, etc.) is developed through practice.

Research Citation: Doyle, 1983

Research Application: Students practice procedural skills of reading, language, and math when using FFP. The same group of twenty-five academic skills is reviewed with each FFP game at home each evening until the child advances to the next level.

Research Finding: One component of intelligence is the ability to convert information into patterns that can be used automatically and efficiently to solve problems.

Research Citation: Sternberg, 1988

Research Application: By using FFP as directed, at least three times per week for up to twenty-four weeks, students are given sufficient repetitions to recognize patterns and strategies. Every FFP game is designed to provide opportunities to apply the patterns and strategies discovered in previous games to new questions and problems.

Research Finding: Facility in encoding and remembering new information is related to the strength of the knowledge base. (In other words, it's easier to learn something new if one already possesses the prerequisite skills or information.)

Research Citation: Rosenshine, 1997; Pressley, Borkowski, & Schneider, 1987

Research Application: Using FFP, students build and maintain a solid knowledge base by practicing twenty-five essential academic skills each day in reading/language or math. (Lacking regular, consistent

review, students can lose facility with prerequisite skills. That's when learning new things may be so difficult that they become discouraged, and some give up even trying to learn.)

Research Finding: Redundancy of review (overlearning) is particularly helpful in retaining principles and concepts.

Research Citation: Brophy & Good, 1986; Shuell 1996

Research Application: FFP provides for redundancy of review for all students. FFP continues to review each concept or skill at least three times a week for up to twenty-four weeks before the student moves to a new level. This redundancy of review puts success in the reach of students by providing sufficient repetitions and review for students to experience the thrill and confidence that comes from mastery. (Many academic programs, workbooks, and textbooks move on to levels or new topics too quickly for low-performing students.)

Research Finding: Practice is a component of almost every model of instruction.

Research Citation: Rosenshine & Stevens, 1986; Good, Grouws, Ebmeier, 1983; Hunter, 1982

Research Application: FFP provides practice, practice, practice. FFP practice is varied, interesting and motivating. FFP practice is correlated to tested objectives and to major instructional programs.

Research Finding: Feedback facilitates learning.

Research Citation: Weinert & Helmke, 1995

Research Application: FFP provides immediate, specific feedback for each question. Each FFP gamecard has the correct answer printed on the back, so there is no confusion. Directions specify that the parent uses a positive feedback phrase such as "Good job," "Excellent!" "Right again!" or "You got it," to verify a correct answer. When an incorrect answer is given, the directions specify that the parent is to say, "That's OK, you'll get it right the next time." Then the student is to study the card (figure it out, memorize it, ask for an explanation) and replace the card in the middle of the deck, so it will appear again before the game is over. Visual feedback is also provided by seeing progress along the gameboard's path when as correct answers are given.

Research Finding: Variety creates learner interest.

Research Citation: Zahorik, 1996

Research Application: All FFP lessons include a variety of twenty-five different types of questions. Every FFP game has a different, colorful gameboard.

Research Finding: Increased frequency of tests and quizzes can reduce test anxiety.

Citation: Everson, Tobias, Hartman, & Gourgey, 1991; Pintrich & Schunk, 1996

Research Application: Every FFP game is a quiz done at home with the support of parents. Answering test-type questions in this supportive and enjoyable game environment links responding to test questions with fun, support and success instead of to fear, isolation, and failure.

Research Finding: As the percentage of time increases during which students are *successfully* involved in their task, learning increases.

Citation: Nystrand & Gamoran, 1989

Research Application: Students must be successful with FFP when they are placed correctly and following the easy and courteous FFP procedures. The variety of FFP levels allow placement at any level where the student achieves at least 80% success. When the student consistently gets 100% correct without help, it's time to move to the next level.

Research Finding: Learners differ in the amount of time and practice needed to master a topic.

Citation: Slavin, 1987

Research Application: FFP practice is intrinsically fun, so students often ask to play again and again each night. They can remain at a level for up to 24 weeks if they need that much practice, or move to a higher level as soon as they are ready. (This is unlike most homework assignments where all students receive

assignments at the same level and the students who need the homework most are the students least likely to do the assignments.)

Research Finding: Low-level questions (such as knowledge in Bloom’s Taxonomy) and high-level questions (such as application in Bloom’s Taxonomy) correlate positively with achievement. When the goal is automaticity with basic skills, low-level (knowledge) questions may be most effective.

Citation: Good & Brophy, 1997

Research Application: To promote high achievement, both low-level and high-level questions are included in FFP sets.

Research Finding: Facility with procedural skills (such as adding two-digit numbers, applying phonics skills to decoding words, using correct punctuation and grammar, converting fractions to decimals, etc.) is developed through practice.

Citation: Doyle, 1983

Research Application: FFP games develop facility with readiness, reading, and math procedural skills through practice.

Research Finding: Learning increases when the amount of time during which students are on-task increases within the allocated time. (Allocated time is the *entire* amount of time designated for a content area or topic, including time used for getting ready, arguing, learning what to do, waiting, and other nonacademic activities.) **Citation:** Nystrand & Gamoran, 1989

Research Application: FFP time is used with these on-task behaviors: reading and responding to academic questions on the gamecards and interacting positively with family members. FFP increases time-on-task in three ways: (1) by completely eliminating non-learning activities such as shuffling and dealing cards, rolling dice, and spinning spinners, (2) by using the same rules and procedures for all FFP games to reduce time wasted in “getting ready,” (3) by having the answers on the backs of question card to eliminate time-wasting arguments and confusion.

Research Finding: Effective drill and practice programs allow students as much time as needed to answer and study the feedback.

Citation: Roblyer, Edwards, & Havriluk, 1997

Research Application: Students always have as much time as needed to answer the question cards and to study the feedback offered by parents or other players when using FFP.

Research Finding: Effective drill and practice programs provide brief, attractive, positive feedback for correct answers.

Citation: Roblyer, Edwards, & Havriluk, 1997

Research Application: FFP shows parents how to give brief, attractive, positive feedback for correct answers.

Research Finding: Effective practice programs provide more interesting and attractive feedback for correct answers than for incorrect answers.

Citation: Roblyer, Edwards, & Havriluk, 1997

Research Application: Every FSLG gives students more interesting and attractive feedback for correct answers than for incorrect answers. Seeing that the correct answer printed on the card matches mine, hearing my partner say “Terrific!” and moving ahead on the gameboard is much more interesting and attractive than seeing that the answer does not match mine, hearing my partner say, “That’s OK, you’ll get it right next time,” then studying the card again and staying in the same place on the gameboard.

Research Finding: Properly designed drill and practice activities have advantages over traditional paper and pencil exercises: they provide immediate feedback; they are motivating; and they save

teachers' time. Citation: Roblyer, Edwards, & Havriluk, 1997

Research Application: FFP provides immediate feedback, motivates children to participate and to learn, and saves teacher-time and parent-time by consistently using the same procedures.

Research Finding: Practice with the content and format of test questions increases achievement on tests, especially for students of low ability, young children, and minority students.

Citation: Carrier & Titus, 1981; Dreisbach & Keogh, 1982

Research Application: FFP game questions match the content and are modeled on the format of commonly used statewide testing programs and standardized tests. As the family plays the FFP games, not only do the children develop competence and confidence, but the parents also become familiar with the modern curriculum and test expectations.

Research Basis 4: Motivation

Motivation is the essential fourth area of relevant research. This research demonstrates that as the student achieves success, motivation increases. To assure success, students must begin at the correct level of FFP. Initial FFP placement is at the student's *independent* level: the level in which they respond correctly at least 80% of the time without help. This offers the opportunity for success and progress to students. This is in contrast to the unfortunate practice of placing students at frustrating levels that leave them feeling defeated and unable to learn. FFP instructional procedures promote independence as much as possible, and provide a safety net of support through help from the parent so no child is left to flounder and fail. Student success sets in motion an upward spiral of motivation and accomplishment.

Specific Research Findings, Citations, and Applications

Research Finding: An increase in achievement is followed by an increase in motivation.

Research Citation: Clifford, 1990, Pintrich & Schunk, 1996

Research Application: Students using FFP are very likely to be successful on a majority of the twenty-five tasks because they are placed at their independent level and they have the support of the parent in using the material. Success with the skills they can do encourages them, so they soon master the other skills, too.

Research Finding: Safe, stable, orderly learning environments where students are free from potential embarrassment are correlated with higher motivation and achievement.

Citation: Blumenfeld, 1992; Brophy & Good, 1986; McCombs, 1998

Research Application: FFP rules and procedures promote an emotionally safe, orderly and predictable environment for learning in three ways: First, the FFP rules are the same for all the games at all the levels and for all the skills, that is, parents and students know that the rules will not change. They know exactly what is expected. Second, students know that success is within their grasp (because the teacher has placed them in the right level) and they will not be embarrassed. They know that they will be able to do what is expected of them. Third, FFP rules are often referred to as Frog *Courtesy* Rules, because almost every rule specifies how to behave courteously while using the gamecards and gameboards to practice and master skills. This further contributes to an emotionally safe, stable, and orderly atmosphere.

Research Finding: Success is directly correlated to a positive self-concept.

Research Citation: Scarpatti, 1987

Research Application: Children get to show a caring adult how much they know every time they play a FFP game at home or at school with mentors. FFP also leads students to success in formerly weak skills. The result is a more positive self-concept.

Research Finding: One of the two biggest problems facing beginning teachers is motivation.

Research Citation: Veenman, 1984

Research Application: FFP assists all teachers with this challenge. FFP provides a structured program that reviews the important skills that have already been taught and motivates students to perform well on

twenty-five academic tasks at each level. It provides an organized and motivating approach to each evening's "homework" and establishes the habit of positive parental involvement in academic studies. This home preparation gives each student quality time with parents and provides a mental set of on-task behavior which is carried forward to the school day.

Research Finding: Feedback that has a positive emotional tone promotes learning.

Citation: Brophy & Good, 1986; Murphy, Weil & McGreal, 1986

Research Application: FFP feedback has a positive emotional tone. The rules and procedures direct the partners to

give positive responses to correct answers (Great. Super! You got it. That's right!), then to tell how many spaces to move ahead on the gameboard path. When an incorrect answer is given, a FFP rule dictates a specific positive response for each partner: The parent is to say only the following, "That's OK, you'll get it right the next time." The student then reexamines the missed question, studying it to figure out why the correct answer is correct. He may also ask his parent or partner to help him understand it. Then the card is placed back into the middle of the stack. It will come up again before the game is over, so students are motivated to follow the procedure in order to succeed when the card reappears. (Specifying these positive behaviors reduces or eliminates common negative comments and behaviors that can occur where there is no FFP rule to guide behavior.)

Research Finding: Intrinsic motivation is stimulated by tasks which the learner perceives to be of optimal novelty and difficulty, and by providing personal choice and control.

Citation: American Psychological Association Board of Educational Affairs, 1995

Research Application: Fun-Packs are seen as novel by the students because there is no other home program like them. The wide variety of levels, different types of questions, varied academic skills, and changing gameboard themes provide tasks of optimal novelty and difficulty.

Research Basis 5: Parental Involvement

Although methodological limitations are prevalent in the existing parent involvement research, the sound studies that do exist are overwhelmingly clear: parental involvement in their children's formal schooling is important to the students' academic success. Research confirms the opinions of respondents to the 25th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes Toward the Public Schools: 96% said that encouraging parents to take a more active part in educating their children was "very important."

The term *parental involvement* is defined differently in different studies and may include such diverse activities as serving as chairperson of a parent advisory council, participating in parent conferences, helping with homework, or attending a parenting class, school play or spaghetti supper. This report focuses on those aspects of parental involvement which directly support the academic instructional program. When we use "parent" or "parental involvement" in this section we refer not only to the legal parent, but also to any person who nurtures, guides, and assumes responsibility for the child. In today's society families and child care take many forms, and caregivers may be parents, stepparents, grandparents, foster parents, aunts, uncles, mentors, or others.

The internet provided comprehensive summaries and reports of parental involvement research which were used as resources for this section. We would like to acknowledge the assistance of, and recommend for further information on the topic, *ERIC Digests* such as *The Challenges of Parent Involvement Research* (Baker and Soden) which can be found at [@www.ericfacility.net/ericdigests/ed41930.html](http://www.ericfacility.net/ericdigests/ed41930.html). Research summaries can also be found on State Departments of Education websites. An example is *Parent Involvement: The Key to Student Success and Community Support* at www.sdcoe.k12.ca.us/notes/4/parent-invol.html.

Research Basis 5: Specific Research Findings, Citations, and Applications

Research Finding: Children whose parents help them at home and communicate with the school do better academically and score higher on standardized tests than children of similar aptitude and family background whose parents do not do so.

Research Citation: Henderson & Berla, 1994, Henderson, 1990; Moles, 1982; Walberg, Bole, and Waxman, 1980
Research Application: FFP gives the school an easy-to-follow structure to involve more parents in helping their children at home on a regular basis, and FFP encourages regular opportunities for two-way communication between parent and school.

Research Finding: Parents want to be informed of their children's progress and want to know how they can help their children be more successful in school.

Research Citation: Epstein, 1982

Research Application: FFP keeps the parent continuously informed about the child's performance on 25 skills relating to readiness, reading, language, and/or math. Using FFP activities at home demonstrates for parents how to help their children through the power of positive reinforcement and consistent daily review. The program also shows parents which skills should be reviewed, and evaluates how their children are doing on each of the skills. This helps parents understand how to help and shows clearly what their children need.

Research Finding: Parental involvement leads to improved student achievement and other significant long-term benefits: better school attendance, reduced dropout rates, decreased delinquency, and lower pregnancy rates. Research Citation: Peterson, 1989

Research Application: Ongoing FFP primary research will measure some of these long-term benefits.

Research Finding: Training parents to be tutors of their children has been shown to increase student achievement. The earlier this involvement begins and the longer it is sustained, the greater the impact on positive student outcomes.

Research Citation: McLaughlin and Shields, 1987

Research Application: As they use the FFP games with their children, parents learn to tutor their children using positive reinforcement, shaping, modeling and regular practice. The FFP program may be started with some children as early as 4-5 years of age. The program is designed to continue three nights per week throughout the school year and may be continued until students master all the readiness, reading and math skills expected in typical K-5 programs in the United States.

Research Finding: Teachers consider helping with homework to be an important facet of parental involvement. Research Citation: Epstein, 1982

Research Application: FFP provides a consistent structure and schedule for homework and takes an approach that makes the activity enjoyable for the family to reduce problems of compliance in completing the tasks.

Research Finding: There is strong evidence that low-income and poorly educated parents want to play a role in their children's education, but they do not know how to help their children. Parents can learn to help even if they are not well-educated. Recommendation: Schools need to develop appropriate strategies to involve these parents. Research Citation: McLaughlin & Shields, 1987; Henderson, 1987, updated 1994

Research Application: All parents who can read the letters from A to D and the numbers from 1 to 4 and who have a desire to help their children can use the FFP successfully. FFP is designed with simple, but powerful strategies to help all parents—even unsophisticated parents—to experience success in helping their children. Parents with weak academic skills, even illiterate parents enjoy the family-friendly procedures and the nonthreatening approach of FFP. With or without academic skills, parents using FFP spend quality time on academic topics with their kids, establish effective study routines, and reinforce important reading and math skills.

Research Finding: Regardless of family education, family income, race, or ethnic background, benefits of parental involvement include higher grades and test scores, and positive attitudes and behavior.

Research Citation: Henderson, 1987, updated 1994

Research Application: FFP is a parental involvement program which emphasizes academic skills, positive attitudes toward learning, and positive parent-child and social behaviors.

Research Finding: Nationally fewer than half of parents reported that they had attended any school event or meeting organized for parents.

Research Citation: California Strategic Plan for Parental Involvement in Education. Sacramento: California Department of Education

Research Application: FFP does NOT require that parents come to the school. This means that even parents who will not, do not, or can not come to school can be involved and assist their children at home using FFP.

Research Finding: When parents tutored their young children, the students' performance in school and their feelings of competence improved.

Research Citation: Stearns & Peterson, 1973

Research Application: FFP, Level R is designed for parents use with young (four to seven-year-old) children. Just by playing the games, parents will be tutoring their children and raising their own awareness of the major readiness skills their children need for reading and math. (For young children whose parents read Spanish, not English, Level R is available in a Dual-Language Edition. It provides the readiness skills plus mastery of basic vocabulary in English.)

Research Finding: Hispanic students are often under-represented in school parent involvement programs. When educators understand and are sensitive to the factors affecting the community they serve, participation, increases.

Research Citation: Garcia, 1990; Zelazo, 1995

Research Application: By attending to the cultural and language factors described by Garcia and Zelazo, FFP includes features in the regular editions to make parental involvement inviting for Hispanic families with limited English proficiency. These features also make the program easy to use, even when the teacher doesn't speak Spanish.

Specific examples in all editions: (1) Both Spanish and English versions of all parent communication letters and invitations to participate are provided in the teacher packs which accompany the program. (2) Directions on all FFP gameboards are printed in both Spanish and English, so parents will not have to rely on children to teach them the rules. (3) Every FFP student pack includes a brief parent letter printed in English on one side and Spanish on the other, so the teacher can communicate in the preferred language of the parent every single week.

Specific examples in the Dual Language Editions: (1) Dual Language Editions provide complete translations on the question cards so students can practice in English while parents can read and understand the same text in Spanish. (2) Dual-Language Editions also contain audio CD's which provide a practical way for Spanish-speaking parents to help their children master English. Parents can also use the CD's to increase their own English fluency, if they wish.

Research Finding: Teachers who involved parents in learning activities at home were perceived by the parents as better teachers than those who did not involve parents.

Research Citation: Epstein, 1986

Research Application: Feedback forms from parents using FFP indicate that it is easy for teachers to involve parents in doing the FFP learning activities at home. The parents have high regards for the program. One parent reported on her feedback form that she had nominated the teacher for a community award because she was grateful for the positive effects of the program on her family.

Research Finding: Parents regard schools that do not promote homework as inferior to those who do. Parents form impressions about schools and their instructional programs based on homework

assignments their children bring home.

Research Citation: Becher, 1984

Research Application: FFP provides homework that reviews 25 of the essential skills every night. Not only do the students receive practice, but the parents become aware of the broad scope of skills which are essential for success in the instructional program.

Research Finding: Much research into the effects of parental involvement is flawed by weak experimental design, inconsistent definition of terms, non-objective measurement, and other factors.

Research Citation: Baker & Soden (1998)

Research Application: FFP primary research with strong experimental design has begun. FFP primary research includes randomization, control groups, clear definition of terms, and objective measurement methods.

Research Finding: Teacher enthusiasm for a particular parent involvement strategy is related to the success of that strategy.

Research Citation: Bauch, 1994

Research Application: FFP inspires teacher enthusiasm because it is teacher-friendly: The program reinforces the skills that teachers value, has an easy check-out record, uses simple instructions for parents, uses the familiar and effective Frog format, contains durable materials prepackaged to go home in weatherproof pouches, and comes with all communication forms prepared in both English and Spanish. Teachers are enthusiastic because the program is effective, easy-to-use, and ready-to-use.

Product Information

Frog Publications Family Fun-Pack Program Sets are published solely by Frog Publications, 11820 Uradco Place, Suite 105, San Anotnio, FL 33576. The basic premises of FFP can be stated simply: (1) Students will become very good at those things which they practice every day. (2) When parents are involved in a positive way with systematic academic practice,

achievement and self-confidence will increase. Throughout years of successful application in education, the arts, sports, and other endeavors, these two premises have consistently proven true.

The vocabulary, skills, and concepts in FFP match those of major tests and modern programs. Using FFP games helps parents become familiar with the present-day curriculum, so they know what skills are expected of their children. Often this is quite different from the curriculum of the parents' school days!

FFP Sets are available for readiness skills (reading and math for four-to-six-year-olds), and in a wide range of reading and math levels for elementary and middle school students. The website at www.frog.com shows pictures, identifies the levels, and lists the skills. To see sample questions and the skill lists for any level of FFP first click on the listing Family Fun-Packs. Then click on the level you wish to view. Using your cursor, just touch the name of any skill in the list to see a sample card for that skill.

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