Squiz Platform Bug Fixes and Mobile Enhancements

Issues Fixed

1. Supabase RPC 404 Error - Category Management

Problem:

The `delete_category` RPC function was causing 404 errors when creating or deleting categories. The issue was a mismatch between the function signature in the database and what the frontend was calling.

Root Cause:

- Frontend (CategoryManager.tsx) was calling: `delete_category(p_category_id, force_delete, reassign_to_default)`
- Database migration (20250823) only defined: `delete_category(p_category_id)`
- This signature mismatch caused Supabase to return 404 (function not found)

Solution:

Created a new migration file `20250823_fix_category_rpc_function.sql` that:
- Drops conflicting function definitions
- Creates the correct `delete_category` function with all expected parameters
- Implements proper category deletion with item reassignment logic
- Returns JSON response format that matches frontend expectations
- Includes proper error handling and validation

Files Updated:

- ✅ `supabase/migrations/20250823_fix_category_rpc_function.sql` (new)

2. Mobile AI Chat Enhancements

Requirements:

- Fixed bottom positioning on mobile devices
- Full-screen mode option
- Better responsive design

Implementation:

Key Features Added:

1. **Mobile Detection:** Uses `useMobile()` hook to detect mobile devices

2. **Adaptive Positioning:**
   - Mobile: Fixed at bottom of screen (70vh height) or full-screen
   - Desktop: Draggable floating window or full-screen

3. **Full-Screen Toggle:** Maximize/minimize button for both mobile and desktop

4. **Responsive UI Elements:**
   - Smaller text and padding on mobile
   - Touch-optimized button sizes
   - Mobile-specific rounded corners

Technical Changes:

- **Conditional Dragging:** Disabled drag functionality on mobile and in full-screen mode

- **Dynamic Positioning:** CSS classes adapt based on device type and screen mode

- **Responsive Layout:** Input areas and messages adapt to mobile constraints

- **Safe Area Support:** Proper handling of mobile safe areas (notches, etc.)

Files Updated:
- ✅ `src/components/AIChat.tsx` (enhanced)
- ✅ `src/index_mobile_additions.css` (new mobile styles)

Technical Details

Supabase Function Signature

```
CREATE OR REPLACE FUNCTION delete_category(
    p_category_id uuid,
    force_delete boolean DEFAULT false,
    reassign_to_default boolean DEFAULT true
)
RETURNS json
```

Mobile Responsive Breakpoints

- **Mobile:** `isMobile` hook detection
- **Positioning:**
- Mobile normal: `bottom-0 left-0 right-0 w-full h-[70vh]`
- Mobile full-screen: `inset-0 w-full h-full`
- Desktop normal: `bottom-6 right-6 w-96 h-[500px]`
- Desktop full-screen: `inset-4 w-auto h-auto`

New CSS Classes

- `.ai-chat-mobile` - Full-screen mobile layout
- `.ai-chat-mobile-bottom` - Bottom-fixed mobile layout
- `.custom-scrollbar` - Enhanced scrollbar styling
- `.ai-chat-input-area` - Safe area support for mobile keyboards

Testing Recommendations

Category Management

1. Test creating new categories in each type (quiz, form, qa)
2. Test deleting categories with and without associated items
3. Verify that items get reassigned to "General" category when parent is deleted
4. Test error handling for invalid operations

Mobile AI Chat

1. Test on actual mobile devices (iOS Safari, Android Chrome)
2. Verify fixed bottom positioning works correctly
3. Test full-screen toggle functionality
4. Check keyboard interaction (input doesn't get hidden)
5. Test drag functionality is disabled on mobile
6. Verify desktop drag functionality still works

Deployment Notes

1. **Run the new migration:**
   ```bash
   bash supabase migration up
   ```
2. **Mobile CSS:** The mobile styles are automatically included via `index_mobile_additions.css`
3. **No breaking changes:** All existing functionality is preserved

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Future Enhancements

- Add swipe gestures for mobile chat interactions

- Implement chat history persistence across sessions

- Add voice input support for mobile devices

- Enhanced keyboard shortcut support for desktop