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More online CDF courses are available. Find out where and when the next classes will take place.

Need more training? Online trainings are available, visit our calendar on the web for more information.

Mark your calendars! See what conferences we will be attending this winter.

New Curriculum Manager Eases Four-Year Planning

A recent addition to the Kuder Career Planning System (KCPS) has teachers, counselors, and administrators around the country organizing classes, setting up long-range education plans, and giving students an advantage over paper-based schedules.

The Kuder Curriculum Manager is a new feature to the KCPS, and brings with it the know-how and power to make class planning a breeze, whether it's for 20 students or 2,000. It allows administrators to upload or enter their course lists, assign categories to each class, and align courses with areas of study. Using the Curriculum Manager from the Kuder Administrative Database places the available courses in the students' Education Planner.

Connie Cannon, School-to-Career Coordinator for Prairie City-Monroe High School in Monroe, Iowa, has been using the KCPS for two years. With the new Curriculum Manager tool, she is able to start eighth graders on their four-year class plan, ensuring proper planning for the future. After putting in their course list with the Curriculum Manager, administrators are able to teach an entire class how to use the Education Planner and let each student plan out their own path to graduation.

"I wanted to incorporate the Career Path-

ways into the Curriculum Manager, so students can realize what elective classes they should be taking to align with their individual Pathways," Cannon said. "Currently, it's in a hardcopy version, but we're getting to the point where we can just use the manager. I like the idea that the Curriculum Manager identifies core curriculum and electives for students, teachers, and parents."

Entering or uploading a course schedule into the Curriculum Manager takes time and advanced planning.

"It's a learn-as-you-go process," Cannon said. "The first time, I had to call Customer Support and Kerry helped me to figure out what was wrong. I tried it again and it worked much more efficiently. By and large, it is very easy to put courses in and get it working. We just set up all of our eighth graders and it worked perfectly."

The Curriculum Manager works for any school, regardless of size, grade, or technological savvy. In the Administrative Database section, under Portfolio Customization, administrators can easily set up the courses and areas of study their school will offer to students. Students can then view and access the information from the student side, under the Education Planner area.

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CTE on the Rise and Using the Kuder System

In today's high school education world, hands-on education is starting to mean a lot more than having the hands gripped around a pencil.

Courses in carpentry, auto mechanics, cosmetology, veterinary science, and sports recreational therapy are just a few of the classes that put high school students into the settings of real occupations – occupations that don't often require a four-year degree.

Recently, national news outlets including *The Christian Science Monitor* and CNN.com have reported on the rising trend of career technical education (CTE), commonly referred to as vo-tech or tech ed.

From coast to coast, this career path is on an upswing – a response to the many jobs that no longer require four-year degrees as the only acceptable education.

Ann Jordan, Career Development Manager at Great Oaks Career Campuses in Cincinnati, Ohio, has witnessed the trend of tech education throughout the years, as well as the kinds of students now applying to the program.

"The majority of our programs start in the 11th grade," Jordan said. "Most programs we have are two-year plans, so it works out well, and after they finish, students can go wherever they'd like. Some go to postsec-

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Differences in the KCS and KSA for Urban vs. Rural Adolescents



Catalina D'Achiardi, Ph.D.
NCASI Research Consultant

(In collaboration with Jane L. Swanson, Ph.D., & Sarah A. Miller)

A call to attend to multicultural issues in all areas of practice is evident in the counseling psychology literature. Vocational psychologists have heeded this call and many have examined career assessment and practice implications in service delivery (e.g., Flores, & O'Brien, 2002; Solberg, Howard, Blustein, & Close, 2002; Turner & Lapan, 2003; Worthington & Juntunen, 1997). Investigations have focused on differences in vocational behavior by variables such as race/ethnicity, gender, SES, age, and others. One example is research examining differences between the career exploration and development of students in rural and urban settings. For example, Wettersten and colleagues (2005) recently looked at the vocational and educational attitudes among rural high school students. They found that, similar to students in urban communities, contextual factors such as social support and parental involvement are meaningful in the work and school attitudes of rural students. Kenny and colleagues (2003) investigated the role of perceived barriers and social supports in the educational and vocational lives of urban high school students. In this study, researchers concluded that school engagement was positively correlated with social supports and work role salience and perceived barriers were negatively correlated with the latter. These results are similar to those found by Wettersten et al. (2005) with a rural sample.

Given this recent evidence suggesting similarities in the career development of rural and urban high school students, the purpose of the present study was to directly compare these stu-

dents to one another, on several important career variables. We examined group differences in a sample of 10th grade rural students versus 10th grade urban students in terms of their assessed interests and self-rated skills.

Participants for this study were 120 10th grade high school students. Half of the sample was from a rural, small town in Illinois and the other half was a matched sample from an urban, large city in the same state. The students from the urban school were matched based on the three demographic variables of age, sex, and ethnicity. Students were either 15 or 16 years old. There were 21 males and 39 females in each of the subsamples (rural, urban), and the ethnic composition of each subsample was 33 (55%) Caucasian, 21 (35%) African-American/Black, 1 (1.7%) Hispanic, 1 (1.7%) Native American, 1 (1.7%) Asian, and 3 (5%) students who identified as "other."

Career interests were assessed using the *Kuder Career Search with Person Match (KCS)*; Zytowski, 2004) and perceived skills were assessed using the *Kuder Skills Assessment (KSA)*; Zytowski & Luzzo, 2002). These inventories were administered online as part of a school-based career exploration program. These instruments each yield scores on the six *Kuder Career Clusters*: Outdoor/Mechanical, Science/Technical, Arts/Communication, Social/Personal Service, Sales/Management, and Business Operations.

RESULTS

Correlations among the six interest *Kuder* cluster scale scores and six skill *Kuder* cluster scale scores are shown in Table 1. Correlations within an inventory (i.e., among interests, and among skills) are consistently higher than correlations between like-named scales across the two inventories (e.g., Science/Technical skills with Science/Technical interests).

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Table 1
Correlations among Interest and Skill Kuder Cluster Scales

	Interests						Skills					
	O	S	A	So	M	B	O	S	A	So	M	B
Interests												
OUT/MEC (O)	-											
SCI/TEC (S)	.45	-										
ART/COM (A)	-.54	-.39	-									
SOC/PER (So)	-.58	-.59	.52	-								
SAL/MAN (M)	-.18	-.39	-.11	-.11	-							
BUS OPER (B)	-.29	-.37	-.06	-.11	.13	-						
Skills												
OUT/MEC (O)	.30	.20	-.12	-.07	-.25	-.26	-					
SCI/TEC (S)	-.07	.09	.26	.24	-.19	-.28	.36	-				
ART/COM (A)	-.08	-.07	.29	.30	-.18	-.16	.24	.58	-			
SOC/PER (So)	-.19	-.16	.23	.38	-.17	-.03	.35	.41	.70	-		
SAL/MAN (M)	-.11	-.10	.15	.29	-.10	-.11	.39	.60	.73	.75	-	
BUS OPER (B)	-.21	-.18	.19	.34	-.06	.00	.30	.51	.69	.81	.82	-

Note. Correlations greater than .18 are significant.

Urban vs. Rural Study Suggests More Investigation Needed

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Some analyses were conducted to examine if there were some group differences when looking at gender and school (rural vs. urban). Initial analyses also included ethnicity as a third variable, but no significant effects were found by ethnicity. However, we did find that there were some gender differences as well as differences between schools (rural vs. urban):

Outdoor/Mechanical: Rural students had significantly higher Outdoor/Mechanical interests than did urban students, and males had significantly higher Outdoor/Mechanical interests than did females. Males also rated their Outdoor/Mechanical skills significantly higher than did females.

Science/Technical: Urban students rated their Science/Technical skills significantly higher than did rural students.

Arts/Communication: Urban females had significantly higher Arts/Communication interests, and rated themselves as having higher Arts/Communication skills, than did any of the other three groups.

Social/Personal Service: Urban females had substantially higher Social/Personal Service interests than any of the other three groups. In terms of self-rated Social/Personal Service skills, females rated their skills higher than did males, and urban students rated their skills significantly higher than did rural students.

Sales/Management: There were no significant differences in either interests or skills by gender or by rural vs. urban school.

Business Operations: Urban males had the highest Business Operations interest scores, followed by rural females, and urban females and rural males had the lowest Business Operations interest scores. In terms of self-rated Business Operations skills, urban females had higher scores than the other three groups.

DISCUSSION

Our results revealed substantial differences between the rural and urban high school sophomores in the present study. These differences were greater and more pervasive than anticipated: rural vs. urban differences were observed on four of the six interest *Kuder* scales, and five of the six skill *Kuder* scales. Further, the observed differences were more complex than expected, as evidenced by significant interactions between school setting (rural vs. urban) and gender on nearly half of the scales. On the other hand, there were no effects associated with ethnicity.

The origin, meaning, and consequences of these observed differences are not discernible from the present study, but warrant further investigation. Some of these differences make sense given the school context (for example, that rural students reported stronger Outdoor/Mechanical interests than did urban students), while others are not as easily explained (such as urban males having the highest Business Operations interest scores). These self-perceptions of interests and skills may be directly related to previous experiences and opportu-

nities available to the two groups of students, but may also be influenced by the immediate context in which they completed the assessments.

The fact that these differences have emerged by the 10th grade is particularly intriguing, and suggests that these students may continue to explore and develop divergent career directions. An important future direction is to examine whether these differences persist across time, and are connected to career decision-making and to later vocational behavior.

The generalizability of this study is limited by the sample size, and the specific school settings from which the samples were drawn; but, nevertheless, it suggests that rural and urban high school students do have different interests and perceived skills. It is essential that researchers continue to investigate the different factors involved in the career development of high school students across diverse populations. This study suggests that it is important to further investigate the differences in assessed interests and perceived skills with these two groups.

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Believing You Can: Strategically Identifying and Enhancing Skills



**Patrick J. Rottinghaus, Ph.D.,
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Henry Ford once said, “Whether you think that you can or you can’t, you’re usually right.” Helen Keller, who routinely and masterfully overcame challenges, asserted that, “Nothing can be done without hope and confidence.” Even Watty Piper’s Little Engine persisted over a seemingly insurmountable mountain by reciting, “I think I can... I think I can!” Clearly, believing in one’s capabilities is a central task everyone faces when challenged in their work lives.

In 1977, Stanford University Professor Albert Bandura popularized the concept of self-efficacy, or “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments.” This idea connects with performing educational and career-related tasks. A person may have high self-efficacy to pass a calculus course or meet an important business objective on a limited budget. Self-efficacy is task-specific and depends on varying degrees of challenge. Instead of a more global appraisal of the self, or self-esteem, the concept of self-efficacy refers to the belief that one CAN DO a specific task under certain conditions. Depending on our learning histories, abilities, and numerous other factors, people have unique patterns of perceived strengths and weaknesses. Identifying these patterns across a wide spectrum of tasks is an important step toward strategically modifying skill sets and choosing which career pathways to explore, pursue, or avoid.

This past year, my colleagues and I developed the *Kuder Skills Assessment – College and Adult version (KSA-CA)* to assess self-efficacy in performing tasks organized by the 16 Career Clusters established by the U.S. Department of Education. Career clusters comprise groupings of occupations and industries including Human Services, Manufacturing, Information Technology, Finance, Marketing, and Health Science. Sample items include, “Lead a story hour at the library for pre-schoolers” (Education and Training) and, “Take a person’s blood pressure” (Health Science).

Clients’ results are presented for the 16 Career Clusters and the six *Kuder* Career Clusters (e.g., Outdoor/Mechanical) with bar graphs depicting the percentile scores for both skills and interests. Figure 1 provides a sample composite report. Suggested action plans are presented to clients based on various combinations of interest and skill levels. For example, the recommendation for high skill and moderate interest clusters is: “People sometimes downplay their interests in jobs that are easy for them. Have you looked carefully at the rewards of occupations in this cluster? Find out what people working in this area like about their jobs.”

Over 30 years of laboratory and applied research have shown that those with high self-efficacy are more likely to approach versus avoid challenging tasks, set more challenging goals, persist longer, exert greater effort, are more venturesome, recover from setbacks more quickly, and even experience less fear, anxiety,

stress, and depression. Self-efficacy relates to occupational choice, success, and persistence. Moreover, profiles of various occupational groups differ in meaningful ways. A growing body of research also demonstrates the importance of self-efficacy in understanding career behaviors across diverse groups, including women and people of color.

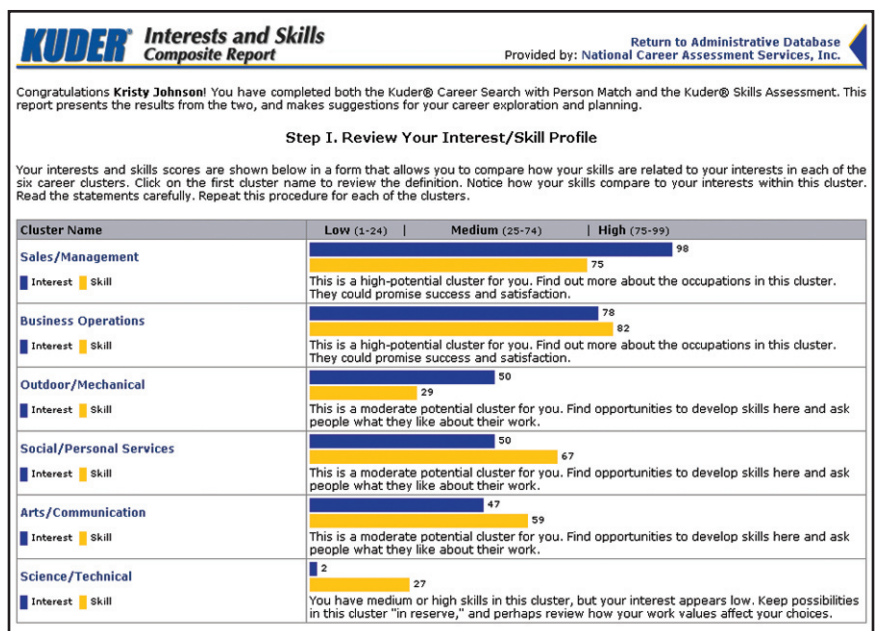
Career transitions can be stressful and even overwhelming. The difference between initial self-doubt and courage can alter career trajectories immensely. However, a supportive professional can help clients take stock of their skills and develop a plan to increase confidence in approaching learning experiences and tasks in critical areas. Fortunately, career interventions based on Bandura’s theory can enhance efforts to help increase self-efficacy beliefs.

The following five sources of efficacy information can increase self-efficacy expectations:

- (1) Performance accomplishments: People can take introductory college courses, get involved in clubs, or internships. This is the most powerful strategy.
- (2) Modeling: Viewing films, reading books, and participating in job shadowing or mentoring programs. This intervention is especially helpful if your client feels some similarity to the model.
- (3) Recognize Emotional Arousal: Employ cognitive-behavioral techniques such as thought stopping, relaxation training, or teaching adaptive self-talk by replacing negative messages with more favorable task-focused cognitions. It is important to help clients recognize and regulate their emotional arousal.
- (4) Verbal Persuasion & Encouragement: Counter faulty thinking and stereotypes. Demonstrate belief in the client’s competencies and ability to manage their own career. Support, encourage, and challenge clients to engage in the career-planning process.

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Figure 1:



Self-Efficacy, Influencing Career Development

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(5) Self-modeling: Imaging yourself behaving effectively, including walking through achieving a goal in your mind. This is a newer idea epitomized by how Tiger Woods envisions his next shot!

By attending to these important features, those providing career services and counseling can facilitate clients' self-awareness and confidence. The KSA-CA can supplement career assessment and counseling efforts as clients consider their capabilities across many tasks before committing to courses of action. Self-efficacy affords individuals greater influence over their career development process. By enabling people to believe in themselves they will strive higher and achieve their dreams for a brighter future!

Footnote. To learn more about self-efficacy visit "Information on Self-Efficacy: A Community of Scholars" www.des.emory.edu/mfp/selfefficacy.html and check out the following articles:

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How to use the New Curriculum Manager

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Steps for setting up your education templates are easy. Follow this guide, or [click here](#) for a downloadable PDF with screen shots. The linked PDF will also contain answers to customers' most frequently asked questions. Please follow the steps in order to ensure the system works correctly on the first attempt.

1. Grade Levels Included: To add a *Grade Level* to a template, select the appropriate grade levels for your template. Then, decide how the grade will be displayed for students using the *Label* section. For example, you may select the ninth grade level, but want it to appear on the students' templates as Freshman. We recommend that you select only four grade levels such as ninth, 10th, 11th, and 12th to allow students to lay out a four-year plan.

2. Major Categories: The Major Categories help to organize the Minor Categories (Step 3) in the education planner. Major Categories may include a course distinction *Label* such as Required and Elective. The *Sort Order* field determines the order of the labels. If you want students to see the Required *Labels* first, give that a *Sort Order* of 1.

3. Minor Categories: The Minor Categories section allows you to enter the content or course areas of study. *Do not list the actual courses in this section.*

Use the *Label* field to add the areas of study, such as Math, English, or Foreign Language. Next, determine in which *Major Category* area the content/course will be placed. For example, you can associate the Math area with the Required Major Category.

The *Restrict to Course List* option will require students to select one of the courses listed. If the check mark is removed, the student will be able to add courses themselves. Lastly, the *Sort Order* field determines where the course is placed under the Major Category area. For example, you may want Math to be the first content area under the required category before the required English category.

4. Areas of Study: The Areas of Study section provides a way to filter courses. An Area of Study may be for a career pathways/cluster, a specific college, a career center, or graduation requirements. This

shows students how courses relate to a specific education path.

5. Course List: The Course List section allows you to enter courses. Information required for each course includes number, title, credits, category, grade level, and area of study. The modifier (allows the school to add additional weight to a specific course such as DC for Dual Credit) field is optional.

Each course may only be under one minor category. A course may be associated with more than one grade level and area of study. Hold down the Control key on your keyboard to select multiple grade levels and area of study titles.

The Bulk Upload feature is a way to upload a complete list of courses. The list must be an Excel file and follow the layout instructions listed in the Bulk Upload area. You will still need to complete steps 1-4 before you bulk upload a list.

While the initial setup may seem daunting, Customer Support is ready to help, 7:00 a.m. to 5:00 p.m., CST, Monday-Friday. For Cannon, it was well worth the phone call to get her students using the Education Planner to its fullest capability.

"We have 330 students in the system right now," Cannon said. "All eighth graders, ninth graders, and then juniors and seniors are taking the assessments; it is a great system to comply with federal requirements from the Department of Education and fulfill standards."

Parents can also get involved by reviewing their child's plans with them. This, combined with the instructor's reinforcement to share assessment results, creates a stable foundation for students to actively and enthusiastically search for career and postsecondary options.

For more information on the *Kuder Curriculum Manager*, [click here](#) to download the instructional PDF (this PDF is also available under Resources in the Administrative Database), or call Customer Support at 877.999.6227 for assistance. This tool is a very powerful way to erase the need for paper-based scheduling and multiple student schedule appointments. Hundreds of educators have already taken advantage of the easy layout and planning concept of the Curriculum Manager. Do it for your school today!

More Opportunities Attracting More Students to CTE Programs

(Continued from page 1)

ondary or in the military, but many start apprenticeships or jobs, and some finish out at community colleges.”

She also said that while students may get started working right after school, they are with a company that will pay for their remaining education – a generous benefit, given the rising cost of college education.

According to the article, “Suddenly, vocational training back in vogue,” U.S. Department of Education data reports enrollment at CTE schools rose 57 percent, from 9.6 million students in 1999 to 15.1 million in 2004.¹

Great Oaks, the largest CTE school in the nation, and second largest in the world, has seen their enrollment remain steady overall, even with changing standards through the No Child Left Behind act.

“With the *Kuder* system approach, there is a great increase in students who use career planning tools, and they’re not just going through the motions,” Jordan said. “With the 16 Career Clusters, students can see their choices narrowed, and the ways that career and tech education will give them jobs to pay their way through higher education, should they continue on that path.”

The *Kuder Career Planning System (KCPS)* recognizes thousands of different career paths, from electrical engineering to fashion design. Conveniently, many schools specializing in trade-focused education use the *KCPS* in feeder schools, and by the time students reach the age to attend a CTE school, they are headed on the path of their choice, to the career of their choice.

The Miami Valley Career Technical Center (MVCTC) in Clayton, Ohio, is another school employing the tools of the *KCPS* for their CTE students. Communications Coordinator Rosalie Bernard spoke of the growth potential students have in today’s world.

“With career planning systems like the *Kuder* system, students are beginning to look at career choices at a younger age,” Bernard said. “We’re also seeing more students chose non-traditional programs, like girls taking auto technology classes, and it’s not a fluke or a requirement she has to fulfill. Today, it doesn’t matter about gender, race, ethnic background, or anything else. Students have a world of opportunity here through our 50 programs in the various career clusters.”

Parents, school administrators, and lawmakers have all seen the shift toward CTE and have responded accordingly. In August of 2006, President Bush signed the Carl Perkins Vocational and Technical Training Act, giving states \$1.3 billion for the next year to implement and reform career technical education programs in high schools and community colleges. In California alone, Gov. Arnold Schwarzenegger has committed \$100 million of the state budget to CTE program expansion.²

Joan Athen, former U.S. Department of Education Special Assistant for Community Colleges and current NCASI Vice President for Strategic Initiatives, has been witness to the im-

portance of the Perkins Act for schools and nationwide educational standards.

“The new Perkins act gives schools the money to provide a career planning tool, like the *KCPS*, to their students,” Athen said. “It is now required that schools link secondary education to postsecondary with career planning. With the *KCPS*, it is a comprehensive tool that allows students to make sense of the 16 Career Clusters so when they get out of school, they already know their interests, skills, and have readied themselves for a fulfilling career.”

And fulfilling careers, as trends have shown, come in many different forms and titles. As schools like Great Oaks and MVCTC watch national growth projections in different careers, they modify courses to accommodate industry and community needs and demands.

“We consistently look at the demands of the industry,” Jordan said. “One of the top 10 careers where people are retiring is heavy equipment operation, so three years ago we started classes on that. On the other hand, we’ve also changed courses like commercial art to a more digital/e-marketing/interactive media class.”

Jordan also went on to explain the heavy role local businesses play in CTE course offerings and apprenticeships.

“I work with a lot of construction-type industries,” Jordan said. “It’s a huge job field here, and we are able to provide a large pool of potential employees. We are partners with Baker Concrete in a large construction career fair, and it usually brings in 2,500 kids over two days. In looking at aggregate results from the *KCPS* database, we can tailor career fairs and employer visits to our students’ interests.”

At MVCTC, business partnerships, such as the one with the Dayton Tooling and Manufacturing Association, benefit both ends of the relationship with intensive hands-on apprenticeships and a wide range of manufacturing jobs unique to the area.

“Career tech has overcome the stigma of being a dead-end education,” Bernard said. “Parents, businesses, and politicians are beginning to realize its worth. Students graduating with a career tech education are valuable to the workforce. The development of rigorous, relevant education and the growth of business are both crucial parts to making it all work.”

With added federal money to CTE programs, plus a gap in job openings with promises of good salaries, more and more students are choosing to get ahead through CTE schools and community colleges, and the *Kuder* system can help them get there.

“These are agile institutions,” Athen said. “Not just for general education, but with good academic programs for top students. These schools build skills and turn out top workers.”

¹Wood, Daniel B. “Suddenly, vocational training back in vogue.” *The Christian Science Monitor* 12 Oct. 2006. 17 Oct. 2006. <http://www.csmonitor.com/2006/1012/p01s03-usec.html>.

²Associated Press article. “Rebuilding shop classes in U.S. high schools.” CNN. 02 Oct. 2006. 02 Oct. 2006. <http://www.cnn.com/2006/EDUCATION/10/02/career.tech.rise.ap/index.html>.

