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ÉVA RÓZSA:

Möglichkeiten der Modernisierung des Unterrichts
in der Tagesheimschule



Eine der wichtigsten Bestrebungen unseres Unterrichtswesens ist, den Unterricht zu modernisieren. Dies ist seit Jahren durch viele pädagogische Forschungen, Experimente, praktische Versuche bestätigt worden. Es werden diejenigen didaktischen Methoden, Verfahren, Hilfsmittel, durch die der Unterricht zeitgemässer, und so die Erkenntniserwerbung der Schüler, ihre selbständigen Studien ergebnisreicher und grösseren Leistungsgrads sein werden als bisher, - ausser der Modernisierung des Lehrstoffs und der Lehrbücher - sowohl von der pädagogischen Theorie als auch von der Praxis unaufhörlich gesucht.

In allen, auf die Modernisierung des Unterrichts gerichteten Bestrebungen ist der gemeinsame Grundsatz zu finden, dass die Schüler an dem erkenntniserwerbenden Vorgang aktiv beteiligt werden sollen. Die Lehrstunde soll daher von Pädagogen so organisiert werden, dass sie der Selbsttätigkeit der Schüler, ihrem selbständigen Denken, ihrer selbständigen Arbeit soviel Möglichkeit wie möglich sichert. In der zeitgemässen Auslegung des erkenntniserwerbenden Vorgangs bekommt eine immer grössere Rolle, - ausser der führenden Tätigkeit des Lehrers -, die selbstlenkende Tätigkeit der Schüler, die sie allerdings auch unter der Führung des Lehrers zu "erlernen" haben. Es ist also eine wesentliche Bestrebung der Modernisierung des Unterrichts, dass Unterricht und Lernen einen einheitlichen Vorgang bilden.

In dieser Bestrebung kommt eine spezifische Rolle einer neuen Organisationsform: der Tagesheimschule zu.

Die Tagesheimschule wünscht - ihrer Zielsetzung entsprechend - eine Organisationsform ausgestalten, die viel mehr Möglichkeit als die konventionelle Schule für die Lösung der Unterrichts- und Erziehungsaufgaben sichert, die vom gesellschaftlichen Anspruch unseres Zeitalters von der institutionellen Schulerziehung erfor-

dert werden.

Die wichtigste Tätigkeitsform der institutionellen Schulerziehung ist der Unterricht. Wir wollen uns mit dessen Gehalt, mit der Auswahl des Lehrstoffs nicht beschäftigen. Wir gehen davon aus, dass die Durchführung der gegenüber den Kenntnissen, Fertigkeiten der Schüler erhobenen Lehrplannerfordernisse während der Lehrstunden und mit dem selbständigen Lernen der Schüler stattfindet. Die erfolgreiche Planerfüllung hängt also vom Niveau der Lehrstunde und vom selbständigen Lernen der Schüler ab.

Die Lehrstunde und das selbständige Lernen gehören streng zusammen. Unterricht und Lernen sollen deshalb in einen einheitlichen Vorgang gestaltet werden, und dies ist die Aufgabe des Schulunterrichts.

Die Sicherung des Unterrichtsniveaus, die Modernisierung sowohl des Gehalts als auch der Methoden sind zweifellos eine Aufgabe der institutionellen Schulerziehung. Die Organisierung des selbständigen Lernens der Schüler, die der Ausarbeitung der Hausaufgabe, die Sicherung der dazu nötigen Bedingungen, ja selbst eine Kontrolle derer werden nicht für eine Aufgabe der Schule angesehen, obwohl wir gut wissen, dass das Ergebnis des selbständigen Lernens der einzelnen Schüler nicht nur vom Niveau der Lehrstunde abhängt, nicht nur davon, wie weit die intellektuellen Kräfte von der Schulstunde entwickelt, wie weit der Lehrstoff überhaupt verstanden wurden. Wir wollen nicht, uns in die Psychologie des Lernens zu vertiefen, aber wir möchten darauf hinweisen, dass es im Laufe des selbständigen Lernens notwendig und möglich ist, viele psychische Funktionen systematisch üben zu lassen. Die Ausgestaltung und Entwicklung dieser psychischen Funktionen hängen von der eigenartigen Struktur des Nervensystems eines jeden Schülers ab. Während der Lehrstunde vermag der Pädagog nur die allgemeinen, für einen jeden in gleicher Weise gültigen Grundsätze den Schülern zu übergeben, aber er sieht seine Schüler in der Tätigkeit des Lernens eigentlich nie. So finden nur verhältnismässig wenige Schüler die Methode des erfolgreichen Lernens, man konnte nur in sehr wenigen Schülern die

Lust zum Lernen erwecken. Unsere Kinder sollen lernen gelehrt werden, damit sie sich in der mehr und mehr zunehmenden Kenntnis- und Informationsmenge auskennen können. Sie können aber nur in einer Tätigkeit: in der Tätigkeit des Lernens gelehrt werden. Die Ausgestaltung einer erfolgreichen, ökonomischen Methode des Lernens ist nicht nur notwendig, damit der Lehrplan so erfolgreich wie möglich ausgeführt wird und die Schüler so gute Leistungsnoten wie möglich erhalten, sondern auch weil die Interessenkreise sich während des in guter Stimmung ausgeführten Lernens herausbilden, die Fähigkeiten sich dann entfalten.

In einer zeitgemässen Schule sollen nicht nur der Unterricht und das Lernen, sondern auch der Unterricht und ausser unterrichtlichen Tätigkeiten in einen einheitlichen Prozess umgestaltet werden und dies ist auch eine der Aufgaben der Schulerziehung.

Die Gestaltung des Interesses des Menschen hängt mit den ihn betreffenden Informationen, mit seinen erworbenen Kenntnissen zusammen. Um das Interesse unserer Kinder sowohl vom Gesichtspunkt der Gesellschaft als auch des Individuums aus positiv zu gestalten, müssen wir sie lehren, wie der Lehrstoff eine Quelle weiteren Interesses, anderer Zerstreuungen, eines neuen Hobby werden kann. Wir sollen unsere Kinder lehren, die Freizeit nützlich, in kultivierter Weise verbringen. Dies kann auch nur in einer Tätigkeit gelehrt werden, deshalb verbringen die Schüler einen Teil ihrer Freizeit "frei", aber unter organisierten pädagogischen Wirkungen.

Das Lernenlehren, die Erziehung auf das Verbringen der Freizeit ist unseres Erachtens - den Anforderungen des Zeitalters entsprechend - zunächst eine Aufgabe der Schulerziehung. Diese sind Aufgaben, die hauptsächlich in einer Zeit ausser dem Unterricht zu lösen sind. Dazu sichern wir Möglichkeit, wenn wir die organisierte pädagogische Wirkung der institutionellen Erziehung systematisch mit drei-vier Stunden täglich erhöhen. Ein Kriterium eines ganztägigen Schulerziehung ist - unserer Meinung nach - nicht allein, wie viel Stunden die Schüler in der Schule verbringen. Die Sicherung gewisser sozialen Bedingungen, Speisung, eine allgemeine Überwachung

können noch für keine "ganztägige Erziehung" angesehen werden. Wie die "ganztätige" Erziehung auch verwirklicht werden kann, wenn die Kinder zufällig nicht in der Schule speisen.

Man versteht also unter eine ganztägige Schulerziehung eine institutionelle Erziehungsform, bei der die Schüler systematisch 8-10 Stunden täglich in der Schule verbringen und das Bestreben der Schule dahin geht, dass sie in den verschiedenen Tätigkeitsformen die Bildung und die Erziehung in einen einheitlichen Vorgang gestaltet, im Interesse der gesunden geistigen und körperlichen Entwicklung der Schüler.

Mit einer seit neun Jahren fortgesetzten Versuchsarbeit haben wir in allen Klassen der "Sándor Petőfi" Grundschule in Hódmezővásárhely, in der unteren Abteilung der "Imre Szoboszlai" Grundschule in Makó und in zahlreichen Schulen des Komitats Csongrád eine eigenartige Organisationsform der in der Schule ausgeführten ganztäglichen Erziehung ausgestaltet.

Organisationsform der 8-Klassigen Tagesheimschule

In der Unterstufe /Klass 1-4./:

Die Schüler sind von 8 bis 17 Uhr, bzw. am Samstag von 8 bis 14 Uhr in der Schule. Als bei allen Tagesheimklassen, gehören auch hier zwei Pädagogen zu einer Klasse, es sind aber hier keine besondere Lehrer und Tagesheimerzieher. Die zwei Pädagogen unterrichten mit gleichen Stundenzahlen und leiten die verschiedenen Tagesheimtätigkeitsformen. Die Lehrer verteilen untereinander den Unterricht der Lehrstoffe so, dass sie auch Lehrstoffe von allgemeinen Kenntnissen und Fertigkeit unterrichten. Dieser Lage entsprechend, weicht auch die Beschäftigungsordnung der Schule von der traditionellen Ordnung /vormittags Lehrstunden, nachmittags Tagesheimtätigkeit/ ab und es ist selbständig auch die Ordnung der Lehrstunden verschieden. Sowohl die Lehrstunden als auch die der Tagesheimtätigkeit entsprechende Zeit-Lernen, Anfertigung der Aufgaben, Zirkelarbeit,

Spiel, kulturelle und freie Tätigkeit - wechseln zweckmässig im Laufe der ganzen verfügbaren Zeit. Die Schüler bekommen überhaupt keine Hausaufgaben, die zu Haus gemacht werden sollten. Ja, sie bringen auch ihre Lehrmittel nur samstäglich nach Haus, um ihre Hefte, Arbeiten ihren Eltern zu zeigen. Aus den einzelnen Lehrgegenständen bekommen sie aber am Ende der Lehrstunde - in der traditionellen Weise - Aufgaben, die die Schüler in der im Stundenplan bestimmten Zeit, unter der Aufsicht des den Gegenstand unterrichtenden Lehrers verrichten, und zwar am Anfang der ersten Klasse unter der Leitung des Lehrers, später aber mehr und mehr völlig selbständig.

Der Stundenplan wird mit einem zweiwöchentlichen Wechsel fertiggestellt, weil die in einer Klasse unterrichtenden zwei Pädagogen mit einem wöchentlichen Wechsel vormittags, bzw. nachmittags lehren. So wird jeder zweite Samstag eines jeden Pädagogen frei sein.

In der Oberstufe /Klasse 5-8./:

Bei der Zusammenstellung der Tages-, bzw. Wochenordnung sind wir davon ausgegangen, dass wir ausser den im Lehrplan vorgeschriebenen obligatorischen 45-min. Lehrstunden jeden Tag eine in der im Lehrplan bestimmten Zeit unter der Aufsicht des Fachlehrers stattfindende selbständige Vorbereitung sichern. Diese Zeit wurde in 25, bzw. 20 Minuten bestimmt. Diese Zeit ist einerseits genug für die unter der Aufsicht des Fachlehrers ausgeführte Vorbereitung - da wir ja auch für das völlig selbständige, ungebundene Vorbereitungszeit zu sichern haben - andererseits gelten die 20 und 25-min. Fachlehreraufsichten vom Gesichtspunkt der Verrechnung aus für eine 45-min. Lehrstunde, d.h. eine obligatorische oder Nachhilfestunde.

Der Tagesheimzieher ist der Klassenleiter geworden. Dies betrachten wir für begründet, in pädagogischer Hinsicht, denn er verbringt die meiste Zeit mit den Kindern auch in der neuen Organisationsform. Der Tagesheimklassenleiter gibt die Klassenleiterstunden, ausserdem lehrt er einen der Fachstoffe in der Klasse. Die für die administrativen Tätigkeiten gesicherte "theoretische"

Klassenleiter-Stunde wird von einem der Vormittagslehrer gegeben, so hat jede Klasse eigentlich zwei Klassenleiter.

Es gibt vier Lehrstunden an jedem Vormittag der Woche. Eine von diesen ist im allgemeinen eine weniger Geistestätigkeit erfordernde Stunde. Am Samstag gibt es sechs Lehrstunden, möglichst mit zwei Zeichen- oder zwei politechnischen Stunden. Zwischen den Lehrstunden gibt es Pausen von zehn, nach der vierten Lehrstunde von zwanzig Minuten. Nach dieser Pause folgen: eine selbständige Tätigkeit von fünfundzwanzig und zwei von zwanzig Minuten unter der Aufsicht eines Fachlehrers. Diese sind keine "Ergänzungs-Stunden", sondern organische Teile des Bildungs-Erziehungsvorgangs. Während dieser Zeit arbeiten die Schüler selbständig. Zunächst setzen sie die neuen Kenntnisse aus dem Lehrbuch und aus der im Laufe der Lehrstunde geschriebenen Skizze. Der Lehrer führt die Aufsicht über sie, er spaziert unter ihnen, überwacht, wer wie arbeitet, wieweit er den Stoff der Lehrstunde, die erhaltene Aufgabe verstanden hat. Er sieht, bei wem und in welcher Form eine Hilfe notwendig ist. Der Schüler kann erst beginnen, die schriftliche Aufgabe zu lösen, wenn er vorher die nötigen Stellen im Lehrbuch, Heft sorgfältig durchstudiert hatte. Die Schüler schreiben im selbständigen Lernen nicht in gleichem Tempo fort. In jeder Klasse waren viele Schüler, die während dieser Zeit mit ihren Aufgaben ganz fertig wurden und sie später nur zu wiederholen hatten. Selbst der schwächste Schüler hat die Tätigkeit so beendet, dass er seine Aufgabe verstanden hatte.

Um 13^h05 übernimmt der tagesheimleitende Klassenlehrer die Klasse. Bis 15 Uhr gibt es eine Ruhepause, freie Tätigkeit, Kulturtätigkeit, Mittagessen, usw. Während dieser Zeit dürfen die Schüler, gegen deren Betragen kein Einwurf erhoben wurde, eine Erlaubnis erhalten, die Schule zu verlassen, einzukaufen, Familienaufträge auszuführen.

Zwischen 15^h-15^h45 gibt es eine Lehrplanstunde. Die Nachmittagsstunden werden von den tagesheimleitenden Klassenlehrern gehalten. Die vormittags arbeitenden Lehrer haben keine Nachmittagsarbeit,

nur eine freiwillige Aufsicht oder Korrepetierung. Nach der Stunde folgen Ruhepause und dann Lernarbeiten /selbständiges Lernen unter der Aufsicht des Klassenlehrers/. Während dieser Zeit lernt jederman das und in der Reihe, was und wie er es individuell notwendig fühlt. Hat er vormittags in der selbständigen Tätigkeit seine schriftliche Aufgabe nicht beendet, so setzt er sie natürlich auch in dieser Zeit fort. Die in der Nachmittagslehrzeit mit ihren Aufgaben früher fertig wurden, als das Ende der Arbeitszeit, bekommen eine Möglichkeit, sich im Turnsaal und in der Werkstatt, ihren Interessen und Ansprüchen entsprechend, zu zerstreuen oder ruhen.

Rolle der Tagesheimschule in der Modernisierung des Vorgangs des Unterrichts und Lernens

Die Organisationsform der Tagesheimschule und ihre schon bisher ausgestaltete Versuchsarbeitsordnung selber sichern mehrere Möglichkeiten für die Erhöhung der Wirksamkeit des zeitgemässen Unterrichts und Lernens, als die traditionelle Schule.

Unseren Erfahrungen nach können Unterricht und Lernen nur dann einen wirklich einheitlichen Vorgang bilden, wenn der Pädagog sich selbst ausser den Lehrstunden davon überzeugen kann, wie seine Schüler individuell die neuen Kenntnisse, sowie die davon gegebenen Aufgaben bearbeitet und verstanden hatten, wenn er ihre individuellen Gegebenheiten erkennt und dementsprechend in der Ausgestaltung der ökonomischen individuellen Lernmethode, des richtigen selbstleitenden Systems zu helfen vermag. Hat der Pädagog dazu keine Möglichkeit, oder ist er nicht umhin, diese Möglichkeit einem anderen - wenn auch einem anderen Fachpädagogen - zu übergeben /traditionelle Schule, Hort/ so ist die Umbildung des Unterrichts und des Lernens in einen einheitlichen Vorgang überaus schwierig und ihre Wirksamkeit ist sehr zweifelhaft.

Im organisatorischen Rahmen der Tagesheimschule besteht die Möglichkeit, den Unterricht und das Lernen in einen einheitlichen

Vorgang zu gestalten. Unter diesen Umständen stellt sich die Frage, ob es überhaupt nötig ist, die den traditionellen Hausaufgaben entsprechenden Aufgaben, die die Schüler ausser der Lehrstunde zu lösen oder zu erlernen haben, vorgeschrieben werden sollen; ob es im Laufe der Modernisierung der Lehrstunde nicht zweckmässiger sei, mit der Steigerung der Möglichkeit der Schüleraktivität, der selbständigen Arbeit, auch die selbständige Aufgabenlösung der Schüler, die Festmachung, Übung und Anwendung der Kenntnisse in die Lehrstunde völlig einzubauen.

Wir sind der Meinung, dass wir nebst allen Modernisierungstendenzen der Lehrstunde auch die didaktischen Funktionen der traditionellen Hausaufgaben übernehmenden Aufgaben, das selbständige Lernen brauchen, wozu wir ausser den gegenwärtig zur Verfügung stehenden 45-minütigen Lehrplansstunden auch gewisse Zeit und pädagogische Leitung zu sichern haben.

Wir begründen unseren Standpunkt mit den Folgenden:

1. Neben der gegenwärtig gültigen Unterrichtsordnung /45 min. Lehrstunden, Lehrplansstoff, Lehrbücher, Schülerzahl in den Klassen, obligatorische Stundenzahl der Pädagogen, usw./ sichert die Modernisierung der Lehrstunde - miteinbegriffen selbst die sich heute noch in Versuchszustand befindenden Verfahren, die Anwendung der technischen Mittel - keine genügende Möglichkeit dazu, dass alle Schüler die ihren Fähigkeiten entsprechenden maximalen Leistungen ausführen können. Es gibt auch dazu keine Möglichkeit, dass die Pädagogen die Fähigkeiten ihrer Schüler vielseitig kennenlernen und in jedem Fall eine entsprechende individuelle Hilfe, Leitung zu geben vermögen.

2. In der auf die Aktivität, selbständige Arbeit der Schüler aufgebauten zeitgemässen Lehrstunde analysieren und synthetisieren die Schüler mit Hilfe verschiedener Verfahren und Mittel /Gruppenarbeit, individuelle Aufgaben, Test, Programm, Schulfernsehen, usw./ und auf Grund ihrer bestehenden Kenntnisse den neuen Stoff, wenden die neuen Kenntnisse an. Die Übung der notwendigen Psych-

ischen Funktionen, die dazu nötige Zeit hängen aber in grossem Masse nicht nur von den Fähigkeiten der Schüler, sondern auch von ihrer ganzen Persönlichkeit, ihrem Interesse, ihren Informations- und Erlebnisstoffen und noch von vielen anderen Faktoren ab. Die Bewertung der Leistungen der Schüler, ihre Klassifikation ist nur gerecht, wenn ihnen die Möglichkeit gesichert ist, dass die Schüler, die in irgendeiner Hinsicht in einer nachteiligen Lage sind, mit Fleiss, Willen, individueller Arbeit ihre Mängel ersetzen, soviel Zeit für das Lernen verwenden, wie sie brauchen um ihre Gegebenheiten mit einer gesunden Lebensweise entfalten zu lassen.

3. Die in den Vorgang der Lehrstunde eingeschalteten, mit Individual- oder Gruppenarbeit lösbaren Aufgaben sind von vielen Gesichtspunkten aus ausserordentlich nützlich, sie geben aber in sich selbst keine Möglichkeit dazu, dass die Schüler die ihren individuellen Fähigkeiten entsprechenden ökonomischsten individuellen Lernmethoden ausgestalten.

4. Die selbständige Lernzeit ist auch notwendig, weil die Schüler gewisse Zeit auch für Memorisierung, lexikalisches Lernen brauchen und es ist allgemein bekannt, dass dazu bei verschiedenen Gegenständen verschiedene Zeiten notwendig sind.

5. Auch für die Gestaltung der ganzen Persönlichkeit hat das selbständige Lernen eine wesentliche Rolle. Der Schüler soll seine Fähigkeiten kennenlernen, er soll wissen, welche eigentheiten er in sich selbst - mit Hilfe des selbständigen Lernens - zu entwickeln habe. In der Lehrstunde soll er beobachten und aufzeichnen, aus welchen Lehrgegenständen was für Aufgaben er später zu lösen habe. Er hat unter den Schwierigkeitsgraden der Aufgaben zu unterscheiden und soll erlernen, die zur Verfügung stehende Zeit so einzuteilen, dass er sie seinem Interesse, seinen Gegebenheiten entsprechend am ökonomischsten anwenden kann.

Für die Modernisierung des Vorgange des Unterrichts und Lernens ist die eigenartigste Möglichkeit der Tagesheimschule die selbständige Tätigkeit.

"Selbständige Tätigkeit" in der Unterstufe

In der Tagesheimschule gibt es keine Hausaufgabe; deren Funktion wird von dem in der Zeit der selbständigen Tätigkeit ausgeführten Lernen, der Aufgabenlösung übernommen.

Die selbständige Tätigkeit bringt selbst in ihrem Namen die höchste Bestrebung zum Ausdruck, dass die Schüler selbständig lernen, arbeiten, die ihnen zur Verfügung stehende Zeit gut einteilen lernen sollen. Obwohl das selbständige Lernen in dieser Zeit vorgeht, wendeten wir in der Benennung gleichwohl lieber das Wort "Tätigkeit" anstatt des "Lernens" an. /Wir wünschten das Wort "Lernen" nicht deswegen auszuschalten um damit den Schülern zuliebe zu tun; das Lernen kann nämlich selbst unter Schulumständen unserer Erfahrung nach attraktiv gemacht werden/. Sondern wir haben es so gefühlt, dass das Wort "Tätigkeit" - wenn auch nicht am glücklichsten - den Sinn enthält, dass in dieser Zeit nicht nur ein "Lernen", sondern eine vielseitige Tätigkeit vorgeht, fallweise mit einer Sammlungsarbeit, mit Zeichnen oder einer manuellen Tätigkeit verbunden, die im gewohnten Sinn des Wortes kein Lernen oder richtiger gesagt nicht nur Lernen bedeuten.

Bei der selbständigen Tätigkeit ist der den Gegenstand lehrende Pädagog in jedem Fall anwesend. Da die Ausgestaltung der Selbständigkeit der Schüler ein Vorgang ist, der nur in einer Tätigkeit verwirklicht werden kann, hat auch der Pädagog in der Zeit der selbständigen Tätigkeiten eine wichtige Funktion. Der Pädagog hat klar zu sehen, dass die selbständige Tätigkeit unter keinen Umständen eine "Ersatzlehrstunde" sein kann, sondern sie ist ein organischer Teil des einheitlichen Vorgangs des Unterrichts-Lernens. Der Pädagog hat in der Planung und Organisierung des ganzen Vorgangs auf die Möglichkeiten der selbständigen Tätigkeiten bewusst zu bauen und demgemäss die Methoden der Leitung auszuwählen und zu bearbeiten.

Die selbständige Tätigkeit ist von der Stunde organisatorisch unabhängig, sie ist aber so sehr ein organischer Teil des Lehrvorgangs, dass sie auf die pädagogische Arbeit der Lehrstunde unmittelbar zurückwirkt.

Ihr Einfluss auf die Lehrstunde manifestiert sich in den Folgenden:

1. Die Beobachtung und Bewertung der selbständigen Arbeit der Schüler gibt dem Pädagogen eine systematische Rückmeldung darüber, wie seine Schüler den Stoff der Lehrstunde verstanden haben, wie weit sie die neuen Kenntnisse festzusetzen, einzuwenden vermochten. Der Pädagog erhält ein Signal auch darüber, was die Quelle der eventuellen Fehler sein mag, wie er die folgende Lehrstunde zu organisieren hat, was für eine Methode er anwenden und welche Aufgaben für die Verbesserung der Fehler geben soll.

2. Im Laufe der selbständigen Tätigkeit kontrolliert und bewertet der Pädagog die schriftliche Arbeit der Schüler; es unterbleibt also aus der Lehrstunde die Kontrolle und Bewertung der konventionellen Hausaufgabe. Damit werden im allgemeinen 8-10 Minuten pro Lehrstunde frei. Diese Zeit kann den didaktischen Zielsetzungen entsprechend verschieden benutzt werden, für Wiederholung, Übung, die gruppenweise Bewertung gewisser Arbeiten, usw.

3. Der Pädagog sieht seine Schüler während des selbständigen Lernens, er bekommt eine vielseitige Information nicht nur über ihr Wissen, sondern auch über die Entwicklung ihrer Fähigkeiten, ihrer ganzen Persönlichkeit. Auf Grund seiner Kenntnisse kann er selbst in der Lehrstunde individuelle Aufgaben geben, die die Erfüllung des gewünschten Ziels am meisten befördern können.

Die selbständige Tätigkeit, die Leitung des den Gegenstand lehrenden Pädagogen im selbständigen Lernen üben eine grosse Wirkung auf die ganze Persönlichkeit der Kinder aus. Ohne irgendeine besondere Aufforderung, Motivierung ist es natürlich, dass in dieser Zeit jederman selbständig arbeitet und sich wirklich mit dem Lernen beschäftigt. Die systematische Kontrolle und Bewertung

der Arbeit, das zu erwartende Erfolgserlebnis, die Möglichkeit, dass der mit seiner Aufgabe fertig gewordene Schüler seine Zeit nach Herzenslust verbringen darf, als Anregung zum Lernen dienen. Die ständige Anwesenheit, systematische Kontrolle, behilfliche Leitung des Pädagogen bedeutend vermindern die dem Pädagogen gegenüber oft gefühlten Angst und Spannung. Das gesündere Verhältnis zwischen Lehrer und Schüler - zu dessen Ausgestaltung auch die selbständige Tätigkeit beiträgt - führt herbei, dass die Schüler auch in der Lehrstunde viel natürlicher teilnehmen und die Ausfrangung keine Angst, Hemmung in ihnen hervorbringt.

4. In Hinsicht der Gestaltung des Unterrichts und des Lernens in einen einheitlichen Vorgang hat die selbständige Tätigkeit - ausser den oben Erwähnten - eine grosse Bedeutung selbst in der Erhöhung der Verantwortlichkeit des Pädagogen. In einer solchen Organisationsform ist nämlich der Pädagog nicht nur für die Wirksamkeit der Lehrstunde sondern auch dafür verantwortlich, in welchem Masse und wie die Schüler die neuen Kenntnisse, den im Lehrplan enthaltenen Stoff erlernen und anwenden. Die Übertragung der Verantwortung, die im traditionellen Tagesschulen zwischen dem Lehrer und dem Tageserzieher sich noch oft erfahren lässt, hört auf zu sein.

Die selbständige Tätigkeit ist eine, für das selbständige Lernen, die Aufgabenlösung gesicherte Zeit. Im Rahmen der Tagesheimschule sind aber die Pädagogen mit ihren Schülern in vielerlei Tätigkeitsformen zusammen, es bietet sich deshalb Gelegenheit auch dazu, die neuen Kenntnisse nicht nur mit bewusstem Lernen, sondern unter einer entsprechenden pädagogischen Leitung selbst im Laufe von Spielen und anderen Tätigkeiten festzusetzen, anzuwenden. Es können deshalb der Unterricht und auch die ausserunterrichtlichen Tätigkeiten in der Tagesheimschule in einen einheitlichen Vorgang gestaltet werden.

"Selbständige Tätigkeit" in der Oberstufe

In der Oberstufe sind das Ziel, die didaktische Funktion der selbständigen Tätigkeit mit denen der Unterstufe dem Wesen nach

identisch: sie wollen die Schüler erziehen selbständig zu denken, lernen, arbeiten. Gleichwohl gibt es einen grundlegenden Unterschied zwischen den selbständigen Tätigkeiten der Schüler in der Unter- und Oberstufe. Der Unterschied gibt sich aus mehreren Faktoren:

1. Der nach Fächern spezialisierte Unterricht in der Oberstufe bedeutet die Differenzierung der Kenntnisse und damit zusammen die des Interesses der Schüler.

2. Die Methode der Vorbereitung auf die einzelnen Fachstunden ist nur in ihren Grundsätzen identisch /erstens die theoretischen Kenntnisse, dann deren praktische Anwendung, die schriftliche Aufgabe/, in ihren Einzelheiten jedoch hängt die Methode des selbständigen Lernens, der Aufgabenbereitung vom Charakter des Gegenstands und des Lehrstoffteils ja von den Fähigkeiten der einzelnen Schüler, von ihrem Verhältnis zum Gegenstand, dem Anforderungssystem des den Gegenstand lehrenden Pädagogen ab.

3. Die Schulleitung strebt danach, dass die Schüler von der Seite der Pädagogengemeinschaft - sowohl in Beziehung der Methode als auch der Anforderungen - einen einheitlichen pädagogischen Einfluss erhalten aber innerhalb der erlaubten Grenzen gestalten die Pädagogen ihre Methoden und Anforderungssysteme ihrem Verhältnis mit der Klasse entsprechend. Die Schüler sollen also bei der Vorbereitung auf die Stunden nicht nur die Eigenheiten des Fachgegenstands, sondern auch die eigenen pädagogischen Verfahren des den Gegenstand lehrenden Pädagogen in Betracht ziehen.

4. In der Unterstufe der Tagesheimschule, in vier Jahren - unter einer richtigen pädagogischen Leitung - während der selbständigen Tätigkeiten erlernen die Schüler die wesentlichen Grundelemente des selbständigen Lernens. In den selbständigen Tätigkeiten der Oberstufe soll eine erhöhte Möglichkeit dazu gesichert werden, dass - den sich differenzierenden Kenntnissen entsprechend - die Fähigkeiten der Schüler sich entfalten und ihr bestimmter Interessenkreis sich gestaltet.

Die Organisationsform der Oberstufe sichert in der Tagesordnung zwei Zeiten für das selbständige Lernen, für die Aufgabenlösung:

vormittags eine 25 und zwei 20 Minuten lange, unter der Aufsicht des Fachlehrers stattfindende selbständige Tätigkeiten,

nachmittags eine 90 Minuten lange, unter der Aufsicht des Klassenleiters stattfindende selbständige Tätigkeit.

Die didaktische Funktion der Vormittagstätigkeit ist die Folgende:

Unter der Aufsicht des Fachlehrers beschäftigt sich jedermann selbständig mit dem Lehrstoff. Das Ziel einer 20 Minuten langen Arbeit kann nicht sein, dass jeder Schüler mit seiner Aufgabe völlig fertig wird und seine ganze Lektion erlernt. 20 Minuten sind aber bei allen Gegenständen dazu genug, dass mit Hilfe des Lehrbuchs und des Lehrhefts jeder Schüler sich vertieft, diese analysiert, die nötigen Hilfsmittel benützt, d.h., auf Grund einer selbständigen Bearbeitung den Stoff und die dazu gehörige Aufgabe wirklich versteht.

Eine 20 Minuten lange Tätigkeit ist auch genug dazu, dass der Fachlehrer eine Rückmeldung darüber erhält, wie erfolgreich die Lehrstunde war. Er bekommt Signale, wie er sich auf die nächste Lehrstunde vorbereiten soll. Er lernt so die Lernmethoden, Arbeit, Fähigkeiten der einzelnen Schüler kennen und kann für die Erzielung einer den Gegebenheiten entsprechenden Leistung die notwendige pädagogische Leitung geben.

Die eigenartigen didaktischen Aufgaben der einzelnen selbständigen Tätigkeiten werden von der eigenartigen pädagogischen Lage /d.h., vom Lehrstoff, dem Stoffteil, der Aufgabe, dem Charakter der Klasse, der Zielsetzung des Pädagogen, usw./ bestimmt. Demgemäss kann auch die didaktische Funktion der selbständigen Tätigkeit in einem zu einem identischen Lehrgegenstand gehörenden Aufgabenbesystem. So können z.B. auf dem Gebiet der ungarischen Sprache und Literatur auch viele grammatische und literarische Aufgaben geben, die nach

einer in der Lehrstunde ausgeführten Vorbereitung in den zur Verfügung stehenden 20 Minuten in vollem Masse gelöst werden können. Es ist natürlich nicht zu erdenken, dass ein Aufsatz mit einer wohl-durchdachten Begründung in 20 Minuten verfertigt wird. Es ist in diesem Fall nicht das Ziel, dass die Schüler den Aufsatz in der Vormittagstätigkeit beginnen, dann aus dem Gedankengang fallen und den Aufsatz nachmittags nur mit Schwierigkeit oder mit einem fühlbaren Bruch beenden. Die vormittäglichen 20 Minuten sind sehr geeignet dazu, dass die Schüler zum Aufsatz mit selbständiger Arbeit Stoff sammeln, ihn der Reihe nach ordnen und den Entwurf dazu schreiben. Auf Grund des durchdachten Entwurf können sie nachmittags leichter und in einer kürzeren Zeit den Aufsatz schreiben. Der als "Hausaufgabe" aufgegebenen Aufsatz, den die Schüler während der selbständigen Tätigkeit verfertigen sollen, ist nicht viel zu häufig; aber wir erreichen damit gleichwohl, dass sie ihren Stoff schon voraus ordnen, das Konzept des Aufsatzes schon vorwärts und nicht nachträglich schreiben.

Aus Mathematik z.B. kann der Pädagog drei Aufgaben identischen Typs geben. Die Lösung des ersten Beispiels erfordert mehr Denken; die anderen zwei Aufgaben dienen nurmehr zur Übung der Anwendung der erkannten Zusammenhänge. In solchen Fällen ist es zweckmässig, dass sie das erste "Musterbeispiel" während der selbständigen Vormittagstätigkeit in seiner Gänze ausarbeiten, damit der Pädagog die Selbständigkeit der Arbeit, den richtigen Gedankengang überprüfen und wo er es nötig sieht, eingreifen kann. Sind die Aufgaben in der Lehrstunde gut vorbereitet, so werden alle drei Aufgaben von allen Schülern in 20 Minuten gelöst. Gibt es auch einige Schüler, die langsamer denken, arbeiten, so werden auch sie für alle Fälle das Musterbeispiel selbständig gelöst haben; sie kennen also den richtigen Gedankengang und werden nachmittags auf diesem Grund auch die anderen Aufgaben selbständig lösen. Es mag vorkommen, dass der Pädagog. Z.B. den Schülern drei Aufgaben verschiedenen Typs gibt. In diesem Fall kann er die Schüler darauf aufmerksam machen, dass sie während der selbständigen Tätigkeit zunächst die Lösungspläne

verfertigen und die Bearbeitung erst danach beginnen sollen. Das Ziel ist auch hier, dass der Pädagog die selbständige Arbeit kontrolliert und sich überzeugt, dass jederman die zusammenhänge selbständig erkennt und die nötigen Kenntnisse auch anzuwenden vermag.

Von allen Lehrgegenständen aus könnten wir Beispiele dazu zeigen, wie das didaktische Ziel, die Funktion der selbständigen Tätigkeit von der eigenartigen pädagogischen Zielsetzung modifiziert wird.

Es ist durch die pädagogische Leitung der selbständigen Vormittagstätigkeit, dass die Schüler die schriftliche Lösung der Aufgaben nicht anfangen können, solange sie die notwendigen theoretischen Kenntnisse nicht erlernt hatten.

Die didaktische Funktion der selbständigen Nachmittagstätigkeit:

Nachmittags stehen 90 Minuten zur Verfügung der Schüler, die sie dem traditionellen Tagesheimlernen entsprechend unter der Aufsicht des Klassenvorstands zu verbringen vermögen. In dieser Zeit beschäftigt sich jederman mit dem Lernen auf Grund seiner individuellen Beurteilung.

Das Ziel der selbständigen Nachmittagsbeurteilung ist, den Lehrstoff, dessen Zusammenhänge sie verstanden jetzt festzusetzen, zu erlernen, damit sie sowohl die Kenntnisse als auch deren Anwendung /die Aufgabenlösungen/ reproduzieren können. Die Schüler beenden also die in der selbständigen Vormittagstätigkeit begonnene Arbeit, das Lernen in der selbständigen Nachmittagstätigkeit. Wer vormittags mit seiner Aufgabe fertig wurde, nachmittags wiederholt den Stoff.

Während die Schüler sich in der selbständiger Vormittagstätigkeit mit der Festsetzung, Vertiefung, Anwendung der neu erworbenen Kenntnisse beschäftigen, vorbereiten sie sich in der selbständigen Nachmittagstätigkeit zunächst auf die Lehrstunden des nächsten Tages. Sie wiederholen, üben, erwecken deshalb den Stoff, womit sie sich

am Vormittag des vorigen Tages - in der Lehrstunde und der selbständigen Tätigkeit - schon beschäftigt hatten. /So kann die alte Bestrebung, dass der Schüler jeden Tag alles lernt, in einer organisierten Form verwirklicht werden./

In der selbständigen Nachmittagstätigkeit führt der Klassen- vorstand die Aufsicht, so ist auch die "unter der Aufsicht des Fachlehrers stattfindende selbständige Vorbereitung" auf den von ihm gelehrteten Gegenstand - oder auf die Gegenstände - nachmittags zu finden. Dieser Teil der selbständigen Nachmittagstätigkeit ist hinsichtlich seines Ziels mit der selbständigen Vormittagsvorbereitung identisch.

Pädagogische Wirkung der selbständigen Tätigkeit

Unseren Erfahrungen nach ist die pädagogische Wirkung des unter der Aufsicht des Fachlehrers stattfindenden selbständigen Lernens ausserordentlich gross. Dies kann in den Folgenden zusammengefasst werden:

1. Der Fachlehrer beobachtet seine Schüler während ihrer Vorbereitung auf den Fachgegenstand, so bereitet er sich auf Grund einer systematischen Rückmeldung auf die folgende Lehrstunde vor, in dieser Weise stellt er die nötigen und genügenden Aufgaben, das eigenartige didaktische Ziel und die entsprechende Methode fest.

2. Er erkennt in einer neueren Tätigkeitsform /des selbständigen Lernens/ die Fähigkeiten, das Interesse seiner Schüler und leistet Hilfe in der Gestaltung der Persönlichkeit.

3. Mit einer geeigneten pädagogischen Leitung gibt er seinen Schülern - individuell und gemeinsam - die ökonomischste und wirkungsvollste Weise der auf den Fachgegenstand anwendbaren Vorbereitung zu erkennen.

4. Mit Hilfe der Erkennung seiner Schüler leistet er eine entsprechende Hilfe dazu, dass jederman bestrebt sei, seiner Fähigkeit gemäss die maximale Leistung zu erreichen.

5. Er kontrolliert systematisch, ob seine Schüler die Aufgaben

wirklich mit einer selbständigen Arbeit verfertigen und ob sie ununterbrochen lernen.

6. Die Verantwortung des Pädagogen nimmt zu, weil er nicht nur für die Lehrstunde, sondern teilweise auch für die Wirksamkeit des selbständigen Lernens verantwortlich ist. Er soll die pädagogische Leitung der selbständigen Tätigkeit - zusammen mit derjenigen der Lehrstunde - planen, dazu soll er sich vorbereiten, was ihm allerdings ermöglicht, den Unterricht und das Lernen in einen einheitlichen Vorgang zu gestalten.

Die Lehrstunde und die selbständige Tätigkeit können - unter der Bedingung einer gleichen pädagogischen Leitung - in einen so einheitlichen Vorgang gestaltet werden, dass es beinahe gekünstelt zu sein scheint, die einzelnen Momente des Vorgangs voneinander mit einer scharfen Grenze abzusondern: die 45 min. Lehrstunde mit seinen eigenartigen didaktischen Aufgaben und das 20-25 min. selbständige Lernen steif zu zertrennen. Man braucht diese Absonderung gleich wohl, solange auf Grund der unterrichtszentrischen Anschauung die Gefahr der "Ersatzstunde" besteht.

Die bisherigen Unterrichtsergebnisse unserer Versuchsarbeit sind hoffnungsvoll, obwohl ihre "Abschätzung" und hauptsächlich ihre Vergleichung mit den Ergebnissen anderer Schulen nicht einfach und auch nicht immer eindeutig ist. Es ist allgemein bekannt, dass die Studienleistung von sehr vielen Faktoren abhängt und dass es unrealistisch ist, die Unterrichtsergebnisse zweier Institutionen mit der Vergleichung der Studiendurchschnitte der Schüler zu messen. Und es ist noch weniger begründet, die bessere Studienleistung einer Schule einem einzigen Faktor - in unserem Fall der Organisationsform der Tagesheimschule - zuzuschreiben.

In der Beurteilung des Ergebnisses unserer Unterrichtsarbeit stützen wir uns gegenwärtig zunächst auf die mit sich selbst vergleichene Entwicklung der einzelnen Schulen. Es ist von unseren mehrjährigen Erfahrungen gezeigt, dass die Anzahl der Durchfälle in der Tagesheimschule bedeutend vermindert werden kann.

Vom Gesichtspunkt unserer bisherigen Unterrichtsergebnisse aus betrachtet halten wir die in der fünften Klasse erzielten Ergebnisse für die Erziehungswertesten. Die Pädagogen haben selbst in den Zeiten als noch nur die vier unteren Klassen in der Organisationsform der Tagesheimschule arbeiteten, von Jahr zu Jahr erfahren, dass der Übergang in die fünfte Klasse leichter ist, als in der traditionellen Schule. Seit die Tagesheimschule sich auch in der oberen Abteilung ausgestaltet hat, hat das Durchschnittsergebnis der Schüler der fünften Klasse überhaupt keine Rückschritte gemacht, ja es nahm sogar zu mit dem der Schüler der vierten Klasse verglichen.

In der Schule zu Makó - wo es bisher auch konventionelle parallele Klassen gab - die Unterrichtsleistung aller Klassen der mit fünftägigen Arbeitswochen arbeitenden unteren Abteilung von Jahr zu Jahr höher als der Schulendurchschnitt und die Durchschnittsergebnisse der in der traditionellen Form arbeitenden parallelen Klassen sind.

Die achtklassige Tagesheimschule ist eine experimentelle Organisationsform, mit eigenartigen pädagogischen Umständen und Möglichkeiten. Aus ihren Erfahrungen aber können wir - selbst auf Grund ihrer bisherigen Arbeit - gewisse Folgerungen ziehen, die auch in anderen Organisationsformen des Unterrichts gültig sind. Es sind durch die Erfahrungen, die datenmässigen Beobachtungen und die experimentellen Ergebnisse der Tagesheimschule die folgenden Tatsachen bestätigt:

- Unterricht und Erziehung können nur dann in einen wirklich einheitlichen Vorgang gestaltet werden, wenn die institutionelle Schulerziehung ihre organisierte Erziehungswirkung auch auf einen Teil der ausserunterrichtlichen Tätigkeitsformen ausdehnt;

- Unterricht und Lehren können nur in einen einheitlichen Vorgang gestaltet werden, wenn der den Gegenstand lehrende Pädagog seine Schüler auch während der Vorbereitung auf den Gegenstand und während der selbständigen Aufgabenlösung erkennt; wenn der Fachlehrer je nach den Fachgegenständen und individuell für die Ausge-

staltung der ökonomischsten Lernmethode einen jeden Schüler pädagogisch unterweist.

- Die Schüler können und sollen gelehrt werden, selbständig richtig und erfolgreich lernen, die den Ergebnissen entsprechenden Leistungen bieten. Dies ist aber nur in der Tätigkeit, in der Tätigkeit des selbständigen Lernens selber möglich.

- Der Pädagog hat seine Schüler in vielartigen Tätigkeitsformen zu erkennen - miteinbegriffen auch das selbständige Lernen - um für die Bezwingung der von den verschiedensten Gesichtspunkten aus nachteiligen Lage Hilfe leisten zu können.

- . . -

Unser Sozialistisches Bildungswesen sichert einem jeden gleiche Gelegenheit zum Lernen, die Bedingungen der Entfaltung der Persönlichkeit sind aber - der aus den verschiedensten Gesichtspunkten gegebenen nachteiligen Lage zufolge - sehr verschieden.

Die Tagesheimschule sucht die Art und Weise, wie sie einem jeden Kind ausser der gleichen Gelegenheit auch gleiche Bedingungen für die den Forderungen der Zeit entsprechende Vorbereitung sichern könnte.

Возможности усовершенствования обучения в "суточной"

школе

ЕВА РОДА

Основной принцип стремления к усовершенствованию обучения — сделать учеников активными участниками в процессе приобретения знаний. По объяснению современников в процессе приобретения знаний кроме руководства учителя имеет всё более и более значение самостоятельная работа учеников. С этой точки зрения новая форма, "суточная" школа имеет своеобразные возможности и задачи.

"Суточная" школа — в соответствии своим целям — хочет создавать такую организационную форму, которая обеспечивает более возможностей чем традиционные школы для решения тех учебных и воспитательных задач, которые наше общественное требование ставит перед организованным обучением.

Автор по своим наблюдениям анализирует относящиеся к этому опыту в начальных и старших классах "суточной" школы и подводит итоги им.

Она перечисляет те своеобразные возможности, которые по организационной форме служат образованию единого процесса обучения и учёбы.

Автор анализирует задачу учителя в подготовке учеников к самостоятельной работе.

Итоги статьи следующие: восьмилетняя "суточная" школа ещё только экспериментальная организационная форма, имеющая своеобразные возможности и условия. Но итоги, подведённые опытам предыдущих наблюдений действительны и на другие формы общей школы / традиционная школа продленного дня /.

1. Обучение и воспитание тогда будет действительно единым процессом, когда организационное воспитание распространяет педагогические влияния и на время учеников, вне школьных уроков.

2. Обучение и воспитание тогда будет единым процессом, когда учитель узнаёт учеников во время самостоятельной работы, решения задач и подготовки. Таким образом может он способствовать ученикам в формировании экономического метода для самостоятельной работы.

3. Учитель выучивает школьников думать, заставляет их стремиться к лучшим по способностям достижениям.

4. В "суточной" школе преподаватель узнаёт учеников во время разных занятий, таким образом он помогает оформить не только правильный метод самостоятельной работы, а зная способности учеников содействует успешно их развитию в формировании личности.

THE POSSIBILITIES OF BRINGING INSTRUCTION IN SCHOOL
HOMES /ALL-DAY HOMES/ UP-TO-DATE

ÉVA RÓZSA

It is a common principle endeavour directed at bringing instruction up-to-date, that the pupils need to be made active participants in the process of acquiring knowledge; that besides the controlling activity of the teacher, the self-direction of the pupils should obtain ever increasing weight. In these strivings a new form of organization, the school-home /the all-day school/ has a special function.

As this results from its aim - the school-home intends to develop a form of organization providing much more possibilities of solving the tasks of education and instruction set by the social demand of our age to institutional school education, than this is done by the traditional school. The author sets forth the form of organization of school homes in the lower and upper sections, as developed relying on her own experiments. She discusses the special possibilities produced by that form of organization, founded upon which instruction and learning can be formed into a uniform process. She analyses the teacher's part in training the pupils for independent learning. She examines the question: to what extent school and school home afford possibility of evolving the natural endowments of the children, of attaining a performance equal to their faculties. Summarizing her work, she comes to the following conclusions:

The eight-form elementary-school home is an experimental form of organization, with special educational conditions and possibilities. However, general conclusions can be drawn from her experience, which are also valid in other didactic forms of organization.

Experience, factual data and experimental results of the school homes prove that.

1. Instruction and education can be formed into a truly uniform process only if institutionalized school education also extends its organized educating effect to part of the extra-instruction forms of activity.

2. Teaching and learning can be formed into a uniform process only if the teacher of the subject also gets to know his pupils while they prepare for class, and while they independently solve problems, if he/she gives pedagogical guidance to each pupil to the end of forming the most economical system of learning by subjects and individuals.

3. Pupils can and should be taught proper and successful independent learning and to present performances equal to their abilities; however, this is possible only if they are active, active in independent learning itself.

4. So that he/she can be of help in fighting through situations disadvantageous in a wide variety of respects, the teacher should come to know his/her pupils in several forms of activity, also including independent learning.

DATA ON THE PEDAGOGIC PSYCHOLOGIC STUDY OF THE RELATION
OF THE PUPILS TO THE SCHOOL

József Veczkó



TIMELINESS OF THE STUDIED PROBLEM. AIM OF THE INVESTIGATION

From the aspect of the historical development, it can be stated that for hundreds or even thousands of years the prime factor determining the development of children's personalities, mainly as regards their upbringing, was the micro-environment of the family. The changes taking place in the past two centuries, but particularly from the turn of the century, and within this from the middle of the present century, with regard to the way of life of mankind, have resulted in the decrease of the predominance of the family effects, with a proportional increase in the predominance of the school effects. For just this reason, we consider it necessary to carry out a study of the reflection of these new systems of effects in the children's psyche.

Examination of both the historical and the individual development indicates, besides the family environment, the increase of the importance of the school effects. A fundamental condition of the fitting-in of the young into the society is their schooling during many years in conformity with their level of development.

It is well-known that schools which are one-sided in the traditional sense, and serve only to "pass on knowledge", are far from able to satisfy the ever increasing and differentiating needs of society. In line with the requirements of life, the tasks of the developing socialist school have become extremely many-layered and of a complex nature. Particular approval can be given to the striving, in the spirit of the reform, to turn the school into the children's second home, that is an institution providing the essence of the home, ensuring the constructive cooperation of the pupil community and the teacher community, and possessing a psychologically balanced milieu. Among others, the improvement of the school teaching and training assumes that, from the point of view

of the pupils, the school must be substantially more attractive and more interesting than previously, and more able to satisfy their many-sided interests, that is a more realistic place, where stable social connections can be built up, and where every pupil can feel the importance of his individuality. The society requires that the school develop the entire personality of the pupils, including their abilities, their characters, their sense of direction, etc. The solution of the extended and deepened tasks has necessitated the insertion of new effects. At the same time, up to this time the school has been almost completely occupied with problems relating to the increased volume of knowledge and its passing-on. Since these difficulties can not be solved satisfactorily by the school of today, in the particular situation which exists it is as though the teaching institutions were one-sidedly only centred on the teaching material and the methods instead of the acceptable centring on the personality. Since the psychich climate of the school has a large influence on the productive knowledge of the children, on the development of their ethical and personality behaviour, on the development of their emotional life, the tendencies of their sense of direction, etc., from the point of view of the society it is very important how the pupils accept the school effects, that is what the outcome of the psychic climate of the school is. The problem here of course is how the complex effects will be the fundamental internal conditions of the development of the personality of the young. From the point of view of the community, both now and in the future, we consider it important to examine the relation of the children to the school and the factors producing these reallions in the new systems of effects. To this end, there is a definite justification for the knowledge of the nature of the psychological factors, and further for the elaboration of methods and means whereby negative effects of the school on the personality could be avoided, or at least decreased.

The aims of this comprehensive study are as follows:

/a/ The revelation of the general characteristics of the re-

lation' of the pupils to the school and their more significant motives, on the basis of which the more important problems and basic questions of the examination can be better differentiated.

/b/ The elucidation of the most problematic areas of the school teaching situations /learning activity, teacher's behaviour forms/ which have a negative effect on the development of the personality of pupils of school age, the causes of these problems and their psychological components.

/c/ Research into the possibilities of avoiding the negative school situations, and into the psychological conditions of correcting the disturbance of the personality resulting from these situations.

In the /temporary/ school situation burdened with quantitatively increased requirements and the difficulties of their realisation, of necessity the person of the pedagogue comes ever increasingly into the foreground. A further reason for his coming into the social limelight is the fact that in the period of the so-called temporary difficulties the person of the pedagogue can cause a considerable decrease in or possibly aggravate to an extreme degree the contradiction between the school and the society.

Simultaneously with the development of "school-centred education", a sudden change also takes place in the "social field" forming the scene of mankind's vital activities. The model of the relations of group homogeneity is succeeded by the model of group multiplicity and heterogeneity. The pupils are also surrounded by the entire mass of mass-communication effects. What group-formations and effects in the children become reference groups, or with which the connections are created, that is which produce in them personal commitment, interpersonal relations, or /what is more/ relevant intellectual and emotional experiences, depend on with which of the effects of the microgroups the individual succeeds in creating more intimate connections which, at the same time, coincide with his spheres of interest.

In this period of the rapid change of the systems of effects, for the society it is of decisive importance that the school should be able to create among the pupils a social climate /positive school atmosphere/ in which by means of influence based on mutual cooperation it is possible to ensure the development of the self-regulating ability of the children, the development of their "self-knowledge", and the regulation of their value-systems, customs, positive behaviour models, etc.

In this article four of the main problems will be concentrated on from the research programme outlined above, and details will be presented /only in brief, and mosaic-like/ in the following order: /1/ general survey of the formation of the relation of the pupils to the school; /2/ motives grouped about the learning activity; /3/ examination of the state of the pedagogues' knowledge of the children; and /4/ the most frequently occurring educational behaviour forms.

SOME THEORETICAL AND METHODOLOGICAL CONSIDERATIONS

It has become necessary for us to point out a number of general correlations of the organization of the personality and the relation to the school, which played a determining role in our examination. One such fundamental problem is that the school is conceived as one of the most important conditions of the development of the personality. At the same time, we do not lose sight of the fact that complex systems of external and internal, school and extra-school effects are integrated in the development of the personality of the pupils. However, we are of the opinion that the school effects play a dominant role in the age of "school predominance". The children create as many types of concrete school connections as the number of types of effect with which they come into contact. It must be added at once that the personality strives to integrate these many types of connections into a relationship of a unified nature. Thus, certain relations receive a leading role, others a subordinate role, in the general system of the person-

ality. The relation to the school therefore reflects the integration developed in this respect of the psychic functions, features and state of the personality.

Since the external effects and the internal conditions stand in a definite mutual relation with each other, the child simultaneously processes the systems of school effects affecting him via his personality; he accepts some of these, and rejects others. With those school effects with which the child agrees, and which he accepts and converts to an inner conviction, he creates a positive relation. Negative connections are formed with the rejected school effects. Since the school effects are of many types, and the internal conditions of the children are also various, it frequently happens that given pupils create positive connections with certain effects, and at the same time negative connections with other effects, with overall an ambivalent relation. As a result of the triple nature of the connection, it became necessary to introduce the positive, the negative and the "two-factor" relation into our examination.

It belongs to the essence of our conception that the developed relations be examined in movement, in change and in development. It was considered important that the studies be carried out under identical school conditions, annually for four years, at three different times. The examinations were performed again and again during four years in the classes of the selected schools. By this means the relevant changes and regularities could be followed for a period which was development-psychologically interconnected /classes 1-4 and 5-8 of the primary school, and classes 1-4 of the secondary school/. In this way the relevant characteristic features of all three groups /young school-children, adolescents, and youths/ can be dealt with in their development and compared. In this article, only the data of the three measurements in the first year /Sept., Dec., June/ are reported.

The research was begun with certain preliminary examinations in 1965, and from 1966 was carried out continuously according to class-

es. The size of the data-providing sample was calculated from the total population of the primary and secondary school age groups by taking into account the confidence interval /the sought probability/. The size of the representative sample was established as 12,000 instead of the statistically necessary 10,000 pupils.

The relative frequency obtained in the statistic results can be regarded as acceptable with an accuracy of 0.01 and a probability of 95 %. In the selection of the pupils consideration was given to the numbers in the schools providing training at the various levels, and in the case of the primary schools special attention was paid to the town divided and the village partially divided character. For this reason it was not possible to apply the method of simple chance selection, and the samples were taken by proportional stratification. By this means it was ensured that the composition of the sample conformed well to the composition of the pupils. The results obtained with the above procedure are given in the following Table:

	Town	Village divided	Village partially divided	Village undivided	Total
Number of pupils	3730	4470	1100	700	10,000
Percentage distribution	37.3 %	44.7 %	11 %	7 %	100 %
Number of schools	20	30	18	14	82

Data were obtained in the selected schools at three different times during the school year. On the occasion of the first examination /1-5 Sept. 1966/, the pupils were made to perform the following tasks: /a/ They were asked to write an essay under the title "In school again"; this had the aim of obtaining information from the pupils' accounts as to all the feelings, thoughts, experiences and problems they encounter at the beginning of the school year. /b/ After the writing of the essay, questionnaires were given to

the pupils, which formulated the alternative questions conforming to the level of development of the lower and upper courses.

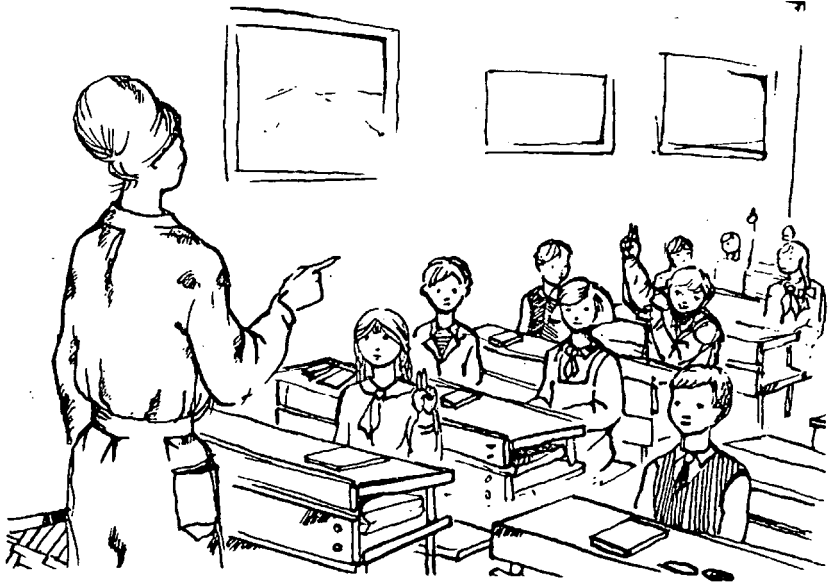
The 35-40 answer possibilities were so arranged on the form that it was possible to classify the answers as follows: /a/ Answers relating to the learning activity. /b/ Motivation resulting from the relation of the teacher and the pupils. /c/ Notes connected with the method of the teacher. /d/ Reasons for the collective connections. /e/ Behaviour of the parents in connection with the school activities of the children. A study relating to the teachers' knowledge of the pupils was carried out separately.

The analysis was performed on the basis of the material collected from these two sources, breaking it down into classes according to the three sampling areas. The positive, negative and two-factor relations to the school were established on the basis of a combined comparison of the essays, the answers given to the questions, and the examinations inserted in December and June.

The second examination /which was to a certain extent of a control nature/ took place on 15-20 Dec. 1966, and the third in the first week of June.

In all of the sampling fields, in addition to the questionnaire individual and group discussions were conducted with the pupils whose names began with the letters K, L and N, with the aid of projection pictures. Of the 12 pictures prepared for this purpose, 2 are shown here as examples.

On the basis of the pupils' answers, the relation to the school can be well differentiated into three main categories:
/a/ We consider as positive the answers of those pupils in whom the four fundamental active components "self", contemporary, school and parent are in dynamic equilibrium, and this situation is passed through as a positive experience. This relation is the results of the special state developed in the integration of the personality.
/b/ In the case of a negative relation, the pupils give expression to their antipathy in all questions relating to the school. In this



Projection pictures used in individual and group discussions

case there is an irreconcilable conflict between the four fundamental factors mentioned above, and this conflict has disturbed the development of the pupils' personalities. /c/ By a "two-factor" relation we understand the relation when the school connection of the pupils forms in a positive way on the effect of certain factors, and at the same time in a negative way on the effect of others, and this contradiction is not modified in the process of integration of the personality; indeed, for a shorter or a longer period of time the duality remains steady. The two-factor relation thus develops where the favourable and unfavourable school experiences remain undecided at least for some time. Although the apparently insoluble conflicts extend only to individual areas of the school life, nevertheless they act in a disturbing way on the development of the pupils' personalities.

FORMATION OF THE PUPILS' RELATION TO THE SCHOOL ON THE BASIS OF THE FIRST EXAMINATION

1. Data on the relation of the pupils to the school attending town divided schools

In the answers given in the first few days of the school year, standpoints were obtained which had been pondered over again on many occasions during the summer, and which, according to our assumptions, had repeatedly filtered through and had "settled" in the personality. In other respects, however, on the effects of numerous external /parents' demands, punishment, desires, etc./ and internal regret, ambition, self-respect, aim in life, etc./ motives, the children are occupied by plans and decisions worthy of attention from a psychological point of view. This circumstance undoubtedly provides interesting contributions in the assessment of the relation to the school based on the pupils' opinions.

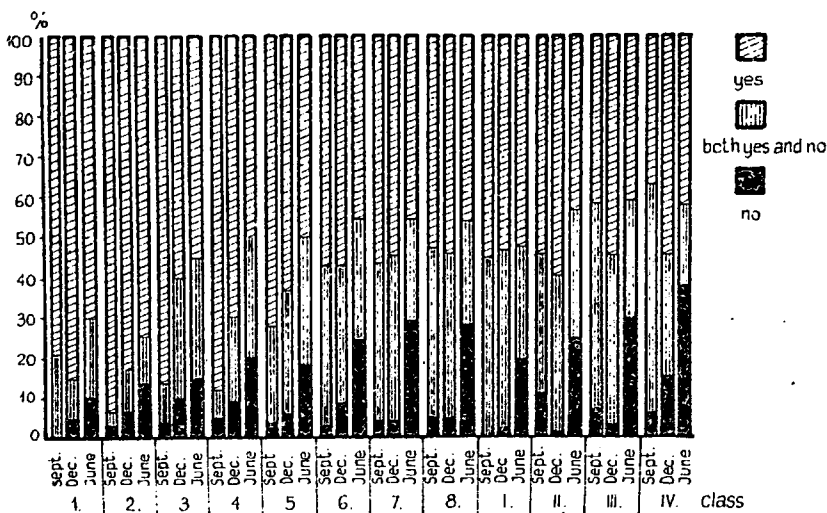


Figure 1

On the basis of the statistical values from the examinations carried out in September, December and June on the pupils of the town schools, the following findings can be reached:

/a/ In the relation of the young school children to the school the positive tendency predominates; the main evidence of this is the mean value of 86.5 % for September. The Figure also shows clearly that the majority of the pupils begin the school year gladly. The \pm differences from the mean value are more significant for class 2 /+7.5/ and class 1 /-8.5/^x.

The indicators mentioned permit the conclusion that the majority of the teachers of the lower sections /and via them the school/

^x The examination of class 1 was carried out with the aid of projection pictures.

exert a favourable effect on the pupils. Based on the verbal and written answers of the children, some of the more important factors will be mentioned, which provide an explanation for the formation of the data given above. The teachers of the lower sections of the primary schools presumably ensure the appropriate possibilities for the satisfaction and assertion of the age-characteristics of the young school children. The teachers generally advantageously interconnect the main activity form of the age, the teaching, with games, movement and activity, which corresponds best to the needs of the pupils. In their teaching work, on the other hand, a central position is given to the "experienced" passing-on of knowledge. By frequently playing a part the children attain a satisfactory experience of success, and this ensures their activity and has a positive influence on the development of their relation to the school. The answers provide the basis for the finding that the majority of the schools can fill the main sphere of activity of 6-10-year-old children with a suitable content. It also emerges from the children's answers that the playmate and friend connections /particularly among the pupils of classes 3 and 4/ become school-centred. After these few more important factors are taken into consideration, it is understandable that the negative relation of the 6-10-year-olds to the school comprises only a very low proportion.

The mean value of the positive responses in the December examination was 70 %, which is 16.5 % lower than in September. From a study of the distribution it can be observed that there is a difference in the positive direction between the values for classes 1 /15 %/ and 2 /14 %/ and the mean value of the lower sections. A significant negative difference can be observed for the pupils of class 3 /10 %/.

The mean value for June was only 61 %, showing a further decrease of 9 %. If the reasons for the decrease are examined, it turns out from the pupils' answers primarily that they can not obtain marks which satisfy their parents; this conflict turns to anxiety, and the result is a disturbance in their otherwise posi-

tive relation to the school. Another such problem arises from deficiencies in the exact understanding of the school requirements and from the falling-behind of the individual dealing with the pupils.

The mean value of the negative relation in September was only 3 %, while in December it was already 7 %, and in June as high as 14.7 %. The most striking result is that on proceeding upwards through the classes the proportions of the negative relations increase. It can readily be seen in Figure 1 that on proceeding towards the end of the school year the relation to the school deteriorates strongly. The prime reason for this is the feeling of defeat, the next the immaturity for school, followed by the negative psychic climate of the school, and finally the lack of mutual cooperation between the school and the parental home.

It is interesting to note the relatively low mean value of the "two-factor relation" for September of 10.5 %. It can also be observed that the scatter between the individual classes is not significant. However, the value for the December examination was already 17.7 %, and that for June 23 %. The increase must be regarded as significant, for these numbers conceal a negative experience to part of the school activity.

Based on the children's answers, here three of the reasons will be dealt with: /1/ The unfavourable behaviour of a small proportion of the teachers. /2/ The incorrect steps at home of a certain proportion of the parents. Examples of this are the too strict regulations of the family, punishment methods following questioning about the school lessons, parental threats in connection with weak school results, etc. /3/ Deficiencies of the material conditions of the school. /4/ Faulty phenomena of the community connections, such as mockery /71 % of the pupils have nicknames/, humiliation, lack of friends, fighting, etc.

/b/ The mean value of the positive relation to the school of the pupils in the upper sections was 60 %. Here, the situation is

not so clear-cut as in the lower classes. It follows from the age-characteristics of the adolescents in the upper sections that their relation to the school is already more complex. The percentage values of Figure 1 show that a significant difference from the mean value in the positive direction is found for class 5 /3 %/. It can be stated that the positive relation gradually decreases /only the value of 7 % for class 8 differs significantly from the mean value/.

Those giving positive answers were influenced most frequently by the following effects:

- /i/ the satisfaction of a widespread requirement of recognition,
- /ii/ the ensuring of the possibility of activity corresponding to the areas of interest, e.g. experiments, study-circle occupations, etc.,
- /iii/ experience-wise processing of the material learnt at school,
- /iv/ consideration of the pupils' development and need for romance,
- /v/ understanding and empathy of the teachers,
- /vi/ recognition of the correlations of the knowledge learnt and the career selected,
- /vii/ success experience,
- /viii/ understanding of the school teaching material,
- /ix/ active participation in the teaching lessons,
- /x/ teaching lessons ensuring experience,
- /xi/ recognition of the pleasure of knowing.

The pupils' relation to the school in December was 57.5 %, showing an insignificant decrease. At the same time, the June value was 46.7 %, a decrease of 13.3 % compared to the mean value for September. Of the reasons, the following will be mentioned: the "self-expectations", targets, and promises made to parents in September were not met by a proportion of the adolescents /the non-

-fulfilment of the great plans/, and even resulted in failure in a certain percentage; as a result of the age-characteristics, in the development of their plans for the year their feeling of reality is wanting; the conflict between the set targets and the will-power; the distraction towards their newly "discovered world"; the disinterest in the school lessons; the pupils are compelled to passivity in certain teaching lessons; the dejection due to deficiencies of the grading; conflicts arising from the teacher-pupil connection; etc.

The average of the negative relations in September for classes 5-8 was 3.5 %, which means that there was only a very low number of pupils whose related and determining connection with the school /based on their experiences/ was uniformly condemnatory. Nevertheless, it should be noted that, with the exception of class 6, the percentage values increase: class 5: 3 %; class 6: 2 %; class 7: 4 %; class 8: 5 %. Of the effects producing the negative relation, the pupils most frequently mention the overtaxing learning, the excessively disciplined, closed way of life, the loneliness, and the cold, unsympathetic attitude of the teachers.

The negative relation in the December examination does not exhibit a significant increase /mean value 5.7 %/. At the same time, the mean value for June was 25 %; which is considered as too large an increase. Since there is no significant difference between the values of the two-factor relation for September and December /35 % and 36.7 %/, and indeed the results of the June examination show an improvement in this respect /28 %/, the more important factors giving rise to the conflict are analyzed together. As an explanation of this it should be mentioned that at school certain of the subjects can not be well understood /mathematics, physics, chemistry, grammar/, and these deficiencies can not be made up for alone at home either. Many criticize the rigid rules of the school, the impatience of certain teachers, evaluations affected by pre-judgement, etc. Similarly, many mention the failure and the fright as the phenomena most harmful to the school relation. Classes 6 and 7

complain of the overloading, they find the experimental work and the possibilities of language practice too little, and they find too much the word-for-word learning.

It also emerges from the answers of the adolescents that simultaneously with their attraction towards the school they begin to view the school life with an ever more critical eye. While the young school children are generally pleased by everything connected with the school, the adolescents' critical standpoint becomes increasingly stronger, the school no longer satisfies their interests, and they sometimes even feel it a burden, and would very often like to escape from it. They devote ever greater attention to the short-comings in the organization and quality of the teaching work. Most conflicts are caused by the lack of understanding of the material, the feeling of a certain degree of defencelessness, the school greyness, the lack of experiments, the word-for-word learning of lifeless and still not understood texts, the blame for passivity, autocratic leadership from the teacher, the impersonalization, the lack of help in selecting a career, the development of fear instead of a thirst for knowledge, bad treatment, etc.

/c/ The secondary school pupils belong to two age groups: the adolescents /classes 1 and 2/, and the youths /classes 3 and 4/. The mean value of their positive relation to the school in September was 45.5 %, which is regarded as strikingly low compared with the values for the lower and upper sections. In class 1, the positive relation to the school increases in September compared to class 8 of the primary school. From class 2 on the positive relation gradually decreases. The problem is all the more peculiar, as in essence the pupils enter the secondary school voluntarily. Those giving a positive answer are most often affected by the following factors:

- /i/ the need for a widespread recognition and the satisfaction of the special interest connected with this,
- /ii/ methods conforming to the level of thought of the pupils, in order that the series of material to be learnt should be

- logically understandable, and that the pupils should experience the pleasure of knowledge increasingly more often,
- /iii/ in the process of recognition the pupil should meet with the wonderful feeling and experience of discovery,
- /iv/ the learning should mean an effort and an experience of success; in the process of the learning it should be activated /experiment, independent processing, etc./; the learning should help to develop the tendency towards a career; the learning, even if only partially, should give an answer to the orientation in natural and social phenomena; the teachers should mean persons of importance to the pupil, and with their individual characteristics they should exemplify the real, but historically ideal adult,
- /v/ a democratic atmosphere in the teacher-pupil connection should provide help in the development of the individuality /individual treatment/, etc.

The mean value of the positive relation in December was 42 %, and in June 44 %, which provides only the partial realization of the above expectations.

The negative relation of the secondary-school pupils to the school in September was 9.3 %, but in June as high as 28.25 %. The first and second examination values are generally increased twofold in comparison to the corresponding data for the primary schools.

Some of the more important motives giving rise to the negative relation: the teaching material not taking into consideration the age characteristics, out-of-date teaching methods; unreality of the school teaching material; neglect of the pupils' special interests; lack of occupation with the individual; the failure arising from difficulties in understanding; rigid adherence to the text of the text-books; passive participation of certain pupils in the teaching lessons; errors resulting from the teachers' lack of preparedness; lack of preparation for a career; the autocratic style of certain teachers, disparaging the pupils; rough teaching attitude-forms;

the pupils' weakness of will-power; etc.

The mean value of the two-factor relation of the secondary school pupils in September was 47.8 %, in December 48.7 %, and in June only 27.25 %. The tremendous decrease between December and June is surprising; this means the deterioration of the relation to the school, for the negative connection increased to the same extent. We shall not deal with the motives here, since these generally correspond to the effects giving rise to the positive and negative relations.

General survey of the picture arising from comparison of the data from the three samplings /based on the September examination/

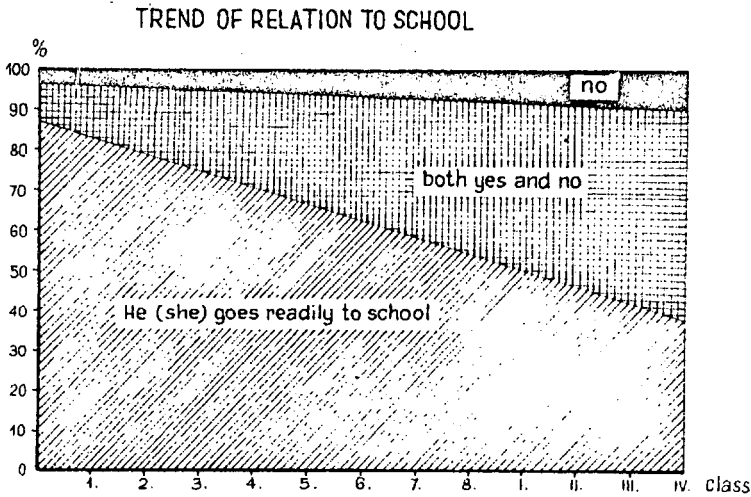


Figure 2

Let us now consider the trends. Figure 2 clearly shows that the majority of the pupils questioned gladly attend school, and begin the school year with pleasure in all three sampling areas. The positive relation of the children in the lower sections in ge-

neral exhibits a higher value than for the adolescents in the higher sections. It is also clearly evident, however, that on proceeding upwards through the classes the positive connection shows a tendency to decrease. At the same time, the "two-factor" relation increases to almost the same extent. The change in the two types of relation can be well appreciated with the aid of the line in the Figure separating the regions "gladly attends school" and "both yes and no", which falls from 90 % to 39 %. This same line indicates the increase of the "two-factor" relation. The negative relation to the school exhibits only a very low percentage value, but on proceeding upwards through the classes this too increases.

According to the data of the December examination, the number of pupils giving a positive answer decreases, and the proportion of the tw-factor connection increases. The values denoting the negative relation do not increase significantly during this period. On the other hand, the values of the June examination change so that the proportion of the positive connections decreases minimally, while at the same time the values of the two-factor relation, which had increased in December, are now lower, with a simultaneous increase in the proportion of the negative relation.

2. Development of the relation of the pupils to the school attending village divided schools

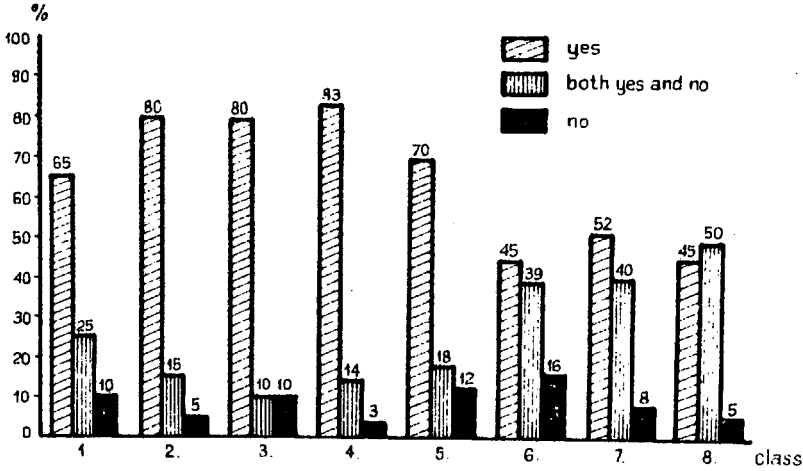


Figure 3

Our above findings relating to the relation to the school of pupils attending town divided schools are also valid for the situation in the village divided schools.

For this reason, we shall deal only with those problems which appear more important, such as the relatively low /65 %/ positive relation of class 1, the break-line in class 6, and the problems in the interests of class 8.

Our examination indicates that the reason for the low value of the positive relation for class 1 at the beginning of the school year can be found in the incorrect preparatory activity of the parents before the child's school life. Thus, some of the pupils begin

the school year with fear, with prejudgement and with inhibitions.

The Figure 200 shows that the percentage values of the negative relation are perceptibly higher than those of the town pupils. There is a strong difference for class 6. While the positive answer of the pupils in the town schools is 45 % for class 6, the corresponding value in the village divided schools is lower by 13 %. In accordance with this, the negative answer of the pupils of class 6 in the village schools is higher by 14 %. The explanation of the problem is seen in the fact that although the "break-line" appears in class 6 for both settlement areas, nevertheless these tendencies are exhibited more strongly in the village school because of the more unfavourable personal and material conditions. At the same time, it is striking that the "two-factor" relation of class 8 in the village school is higher than the proportions of the positive relations. The answers suggest that the direct cause is to be found in the disinterest towards the school learning work and in the turning towards practical activity outside the school. In the view of the pupils the school teaching material is not closely enough connected to the most important tasks of the village life, and thus this material becomes increasingly boring, dry and uninteresting.

3. The development of the relation to the school in September of the pupils attending the partly divided village-school

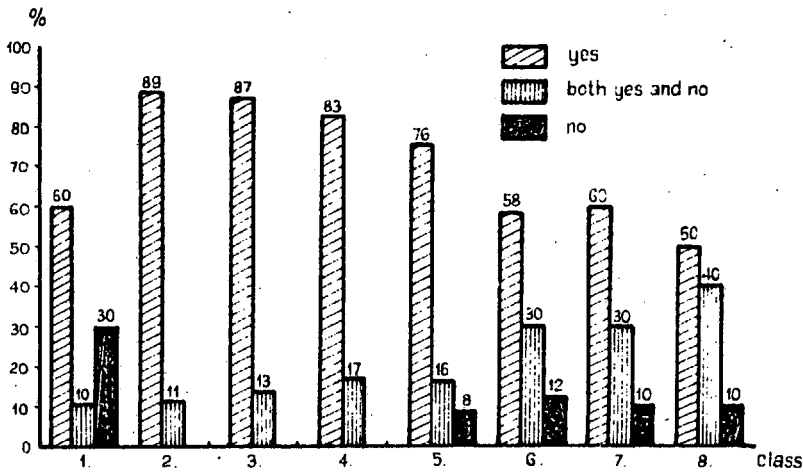


Figure 4

The pupils of the partly divided village-school are affected by environmental effects different from the previous ones. In spite of this, the tendencies of the relation of the pupils to the school do not differ significantly from the results obtained in the town and village divided schools. The number of positive answers for the pupils in the lower sections is 86 %, and for those in the higher sections 61 %. The most striking feature is that, compared to the earlier results, the smallest differences are found here. One of the reasons for this is seen in the balanced nature of the environmental factors. Another important circumstance is that even in the higher classes the pupils have to accommodate themselves

to one teacher. The environmental and school conditions and the life-situations are simpler and more natural. The low /60 %/ positive answer of class 1 permits conclusions as to the drawback of the environment. None of the class 1 pupils questioned had regularly attended the kindergarten. It is characteristic of the relation to the school that the values of the "two-factor" answers are lower than those of children living in towns or villages. In contrast, the negative answers have a value three times larger /10 %/.

MOTIVES OF THE RELATION TO THE SCHOOL CONNECTED WITH THE LEARNING ACTIVITY

The relations of the pupils to the school, and the internal correlations of these, can only be understood properly if the motives and the motivational basis of the pupils' most important activity, the learning, are recognized. The motives of the learning appear in the developing personality of the child in an extremely interconnected way, and quite often in a contradictory way too.

Rubinstein /1964/ classifies the motives of the learning in the following way: /a/ Direct interest in the subject and the reality reflected by it. /b/ Direct interest in the nature of the intellectual activity required by the subject. /c/ The motives are brought about and strengthened by the pupils' inclinations. /d/ The motives are brought about by indirect interest /usefulness, in the interest of the pupil's future/. We too have followed this classification in our examinations, but from the point of view of our theme it is also considered important to differentiate the motives according to their positive or negative nature.

Study of motives with positive effects

An examination is first made of what proportion of the pupils in the classes investigated like to learn. This tells us the extent to which the learning is a natural vital activity which provides an appropriate experience of success and stimulates conscious inte-

rest /Fig. 5/.

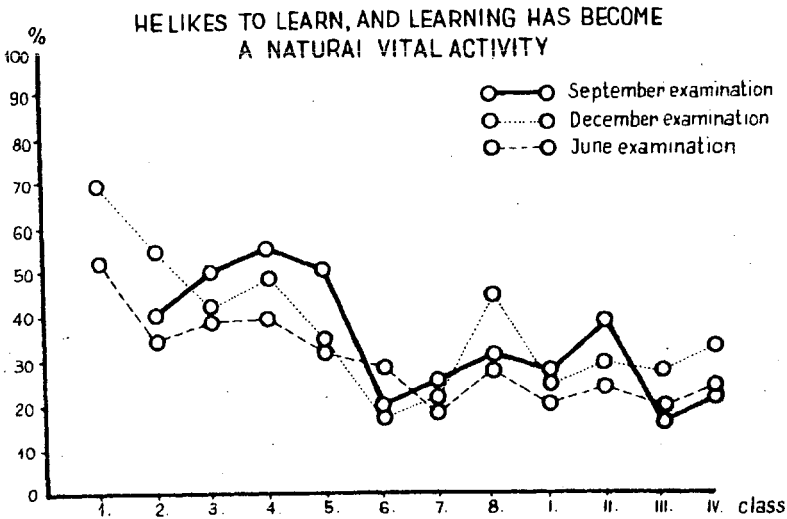


Figure 5

/a/ The data of the first examination indicate that 50 % of the young children like to study, and that the learning means a positive experience for them. In the second examination this value decreases by 7 %, and in the third by a further 1 %. This value of 50 % can be said to be good in comparison to the averages for the pupils in the upper sections and in the secondary schools.

We shall now look for the reasons which make the school learning a positive experience. The majority of the teachers of class 1 correctly establish the transition into school life, which means a new social situation for the children. This is confirmed by the following answers: "I like to learn just as much as to play" /class 1, 9/; "In the school we learn as we play and move" /class 1, 321/.

The class 2 values develop characteristically, for the number

of children learning with pleasure decreased by 13 % compared to the September value for the period of the second sampling, and by 6 % for the third period. The majority of the pupils and teachers seek the explanation in the difficulties in the teaching material in the second term. 89 % of the 100 class 2 pupils questioned mentioned difficulties connected with the learning of the multiplication tables as the cause of the discouragement. From a further study of the views of class 2, it is striking that in 50 % such an answer is obtained: "I like to learn", which means this function involves experience and success for them.

The values for classes 3 and 4 are similar /with minor differences/ /40-55 %/ to the data for classes 1 and 2. A few of the more frequently occurring answers will now be presented: "I like to learn, because I can find out a lot of things I am curious about" /class 3, 9/; "I like to learn because mathematics interests me" /class 3, 71/; "I am curious about everything" /class 3, 94/. The main motive of the learning for class 3 continues to be the direct interest in the individual subjects, but the search for answers to questions of everyday reality now come into prominence. A turning towards the world at the age of 8 years generally appears in the form of curiosity. The examinations confirmed that correct pedagogical organization of the children's "curiosity" can bring about the pupils' interest is accompanied by success in the school, and this is repeated several times, the children like the learning and the school.

A fair number of the class 4 pupils give similar answers: "I like to learn because I can find out interesting things" /class 4, 214/; "I am curious about everything, and I should like to be an explorer or a traveller" /class 4, 113/.

A study was also made of the reasons among the pupils of the higher sections, and of the many types of complex effects, the main "secret" of those teachers who know how to develop a positive relation is seen in the conduction of lessons of a "discovery" nature.

Of the 225 pupils in the lower sections, 5 % in class 1, 6 % in class 2, 39 % in class 3 and 55 % in class 4 wish to be "discoverers" in the above sense of the word. Other frequent answers are as follows: "I like to learn if I can also do something during the lesson" /class 1, 31/; "I like to read, because we cut out letters" /class 1, 4/; "I like to read, because we stack the letters together, and that is a very good game" /class 1, 15/. The majority of the pupils mentioned that they like those teaching lessons in which it is not necessary to sit with their hands behind them, and indeed it is possible to move, where, as they say "I can also do something". This desire is expressed by 97 % of the 225 pupil questioned. Sander /1930/ named this phenomenon "mobility". One of the really most important features of the age examined, the need for movement, is taken into account by only about 30-40 % of the teachers. The already mentioned need of the pupils for activity, and its importance in the acquisition of knowledge in school, were disclosed in many aspects of the psychological research.

Our examinations draw attention to the fact that the children of classes 1-4 wish to develop a special intimate relation with their environment. "In this respect" /Clauss-Hiebsch 1964/ they wish to work through the material learnt and the material of the lessons too with complete experience. It should be noted that this feature is primarily characteristic of classes 1 and 2. The main condition of this "experienced" acquisition of knowledge is the richness of feeling in the teaching lessons. The majority /about 50-60 %/ of the teachers can create this emotional situation of experience. As a result, the learning means pleasure for the 6-10-year-old children. At this age, if the teaching situation devoid of trueness to life remains constant over a period of years, an antipathy lasting for life may develop with regard to learning, and with this may become the motivating factor inhibiting the development of the personality.

A particularly important motive is the experience of success,

which plays a very large role in the development of the positive relations to the school and to the learning. The statements of 51 % of the pupils questioned in classes 1-4 permit conclusions directly or indirectly as to the reasons indicative of the experience of success. The sources of the success are explained by the following: /a/ the teacher praises good answers; /b/ pleasure acquired for the parents; /c/ successful performance in front of the classmates; and /d/ the "such a good feeling" occurring in the most cases. The experience of success is one of the indispensable psychological conditions for the development of the child's personality.

As regards our theme, it would be important to carry out a many-sided analysis of the correlations of the experience of success and the self-evaluation. The children's answers permit the conclusion that at this age the self-evaluation is still relatively weakly developed. One of the very important subjective conditions of the development of the personality is the "ability of self-education", which is inconceivable without appropriate self-evaluation. We agree with the finding of Petrikás /1964/ in this respect: "The elements of the self-evaluation reflect the view formed as to the personality of the pupil, just as the results and the deficiencies of the self-analysis and the self-control. In the educational process we have not separated even a single aspect from the individual's subjective answers on the educative effect."

This is convincingly confirmed by our discussion with a group of about 50 children rich in experiences of success. We were struck by the balanced mental state, which was supported by the experiences of both the teachers and the parents. Not a single inhibited pupil was found among them. Almost all of them were very rapidly able to take up connections. We were surprised by the interests of most of them on a varied and wide scale. They spoke openly and frankly about themselves, about their companions, about their readings and about other themes.

Another important factor of the development of the relation to

the school learning is the level of understanding of the material to be mastered in the teaching lessons. Of the 225 lower-section pupils examined, 62 % were of the opinion that they well understood the material treated in the school. "I like the multiplication tables since I have realized that it is only a question of fast addition" /class 2, 102/. The question of the understanding of the material is a complex problem. It does happen that the pupils understand the material of certain subjects, while other subjects present them with serious difficulties. This is indicated by Figure 6, which presents data on the understanding of mathematics.

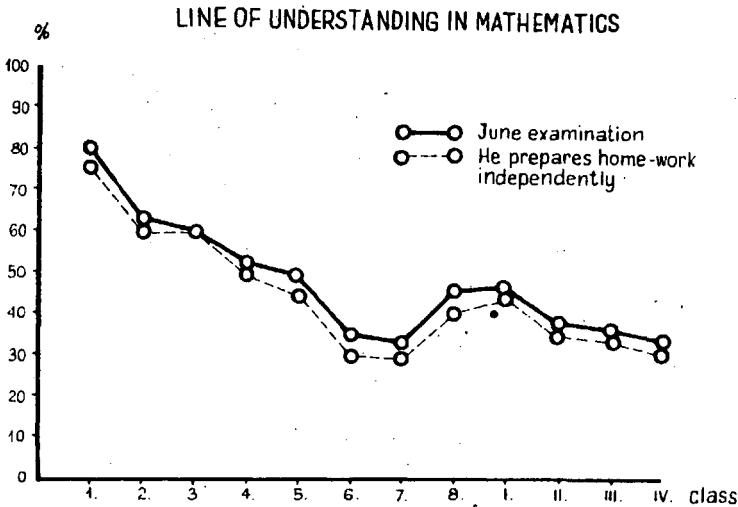


Figure 6

The statistical values show a relatively good understanding percentage of the lower-section pupils. The pupils consider the best methods for rapid understanding to be activity linked with action, illustration, schematic diagrams and the presentation of various models.

The best evidence of the understanding is the independent preparation of homework. In the lower sections the average of those writing independent homework is 60 % /Figure 6/. The other 40 % are helped in the preparation of their homework by their parents or brothers or sisters.

A significant place is occupied in the understanding of the material and in the acquisition of an attachment to learning by teaching methods. The 225 young school children were also questioned as to which were the most frequently occurring teaching methods in their classes. /They had previously been informed about the appearance forms of the individual methods./ The pupils found difficulty in distinguishing between narration and explanation, and therefore the two methods were taken as one value. The sequence took shape in the following way: /1/ narration and explanation /75 %/; /2/ discussion /10 %/; /3/ demonstration /5 %/; /4/ independent and group work /5 %/; /5/ practice /3 %/; /6/ excursions /2 %/. We consider that these proportions show a state of too pedagogue-centred school work. The 225 pupils were further asked to take cards bearing the names of the individual methods and to place them in order according to their own desires. The resulting sequence was as follows: /1/ demonstration and playful, active occupation /80 %/; /2/ narration and discussion /10 %/; /3/ explanation /2 %/; /4/ practice /6 %/; /5/ excursions /2 %/.

The children's relation to the learning is by and large influenced by their achievement, which is realized in the grade. Let us look briefly at the values of Figure 7. The data convince us that the marks in the school have the greatest motivating role and, in the case of excess, a distorting role.

FOR THE GOOD GRADE, FOR THE KNOWLEDGE

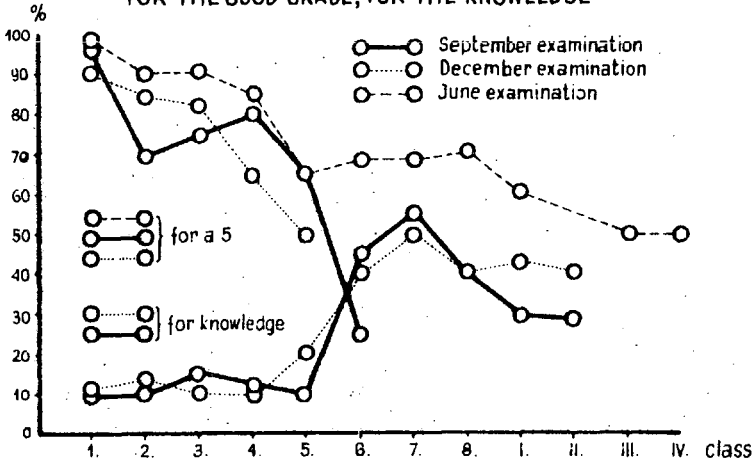


Figure 7

In the September examination, almost the most central problem of 79.7 % of the lower-section pupils is to obtain a good mark, and if at all possible a 5. The struggle or need for a good mark continuously increases as the end of the year approaches.

Similarly, the conversion of the external effects into inner motives is confirmed by Figure 8. By means of this Figure it is wished to demonstrate when and how the pupils understand that with the help of learning they may attain their goals in life. In the course of the inner organization of the school and family requirements with the individual aims, there develops in the pupils that practical view of life on the basis of which they understand that the learning has a concrete sense and purpose. They realize that via the learning they reach their targets in life.

HE REACHES HIS GOAL IN LIFE VIA LEARNING

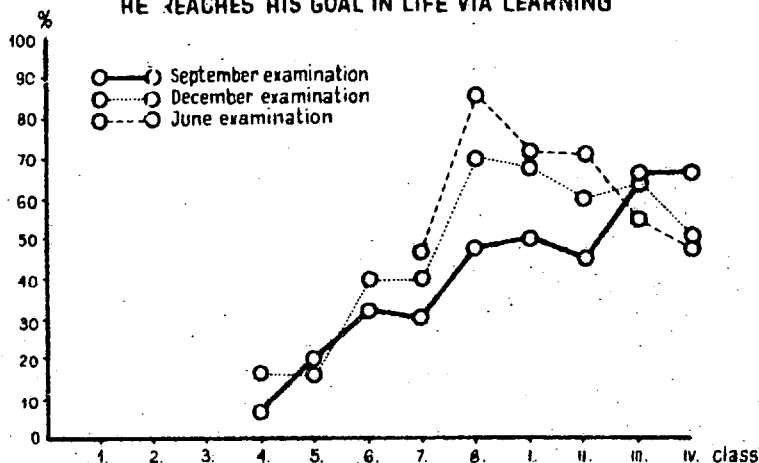


Figure 8

/b/ According to the data of the September measurement, 35.5 % of the pupils in the upper sections like to learn, and admit that the learning has become a natural part of their life. It should also be noted that the positive relation of the upper-section adolescents to the learning is 14.5 % lower than that of the young school children. The value of 35.5 % raises the question of why the school can ensure the pleasure of learning only for the minority of the pupils.

The interest in the learning is generally correlated with the adolescents' choice of career. There are a number of reasons for the low value of 30 % in June: the increased burden of learning, interests of some other nature, etc., but in addition to these there is the important factor that for certain pupils the chance of continued education has decreased, and of necessity this brings about a loss of ambition.

One of the most important conditions of the acquisition of a

liking for learning is the experience-like satisfaction of the adolescents' interests in such a way that it not only "reproduces" interest, but also determines a favourable direction for the development of the personality.

While the teaching effect of "making discoveries" was noticeable among the 6-10-year-olds, at the age of 10-14 years the pupils are already characterized by a striving for constructive self-activity; one of the forms of realization of this is experimentation, the making perceptible of the internal regularities of phenomena. They wish to be convinced personally about everything. The school material simply fascinates them if they themselves can carry out the experiments. "I did not understand the differences between mixtures and compounds at all until I could carry out the experiments myself. Then I was happy and occupied with it for days. I realized that I should not be a poor pupil if I could learn everything with experiments" /class 7, 13/. The need of the pupils at this age for self-activity appears in the form of experimentation and "research and discovery".

The third form of self-activity among adolescents is independent and group occupation. "I like to learn because the group occupations are enjoyable; everyone racks his brain, and we quickly understand and solve the problems. In a group we do not give up if we cannot solve a problem. We begin it again and again. Everyone tries to show what he knows, and so we compete a little too. People give up much more easily by themselves." /class 8, 71/.

It also emerged from the examinations that the adolescents are interested not only in material knowledge, but in human relations too. In one class 98 % of the pupils answered that they like history. They gave the explanation for this that in the lessons of the given teacher they can become acquainted with the lives of people in various historical ages, and do not adhere to the accumulation of data, which they loathe so much. "I like literature because in the features of the characters I can recognize my own mental

features and those of people living in my environment. I impatiently look for the answers to my own problems" /class 8, 1/. It became clear from the answers that the adolescents wish to learn the reality in every subject as far as possible. Of course, this does not exclude the seeking for the exciting, the thrilling, the interesting and the disquieting events and things. Indeed, they are particularly interested in those teaching lessons where the teacher can create the necessary stress.

There is a characteristic correlation of the competition, the experience of success and the development of the "self-consciousness" of adolescence. "In addition to the feeling of stress, the success plays the role of a standard in the competition" /class 8, 13/.

The pupils also demand the following from the teaching lessons: there should be a gay atmosphere, movement, interest and trueness to life. The lesson should mean excitement, the logical conduction of the lesson should correspond to the characteristics of the pupils' understanding and thoughts, the lesson should be connected with people, it should inspire, it should be varied, and it "should help in the exploration of the secrets of the world".

Negative school motives

HE IS AFRAID OF ORAL EXAMINATION

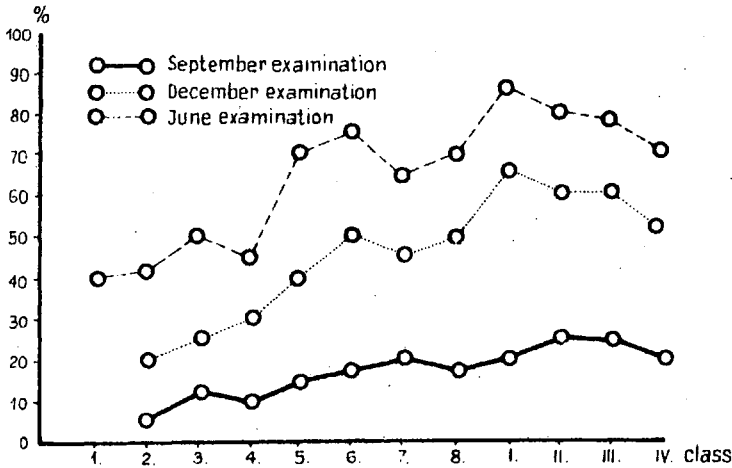


Figure 9

On the basis of the young school children examined in September, it can be said that 9.7 % of them are afraid of having to answer to questioning. The most frequently occurring reason for the fear in school: the uncertainty in the examination situation, the defencelessness, and the terror of the consequences. The pupils' answers also reveal the following effects which give rise to fear in the school: punishment, excess severity, the rough behaviour of the teacher, impatience, humiliation, disparagement and physical punishment. "I am very frightened of the oral examinations, for if I don't know something, the teacher shouts at me very much" /class 4, 17/.

From the answers of the upper-section pupils examined in September it was found that 17 % are afraid of the oral examination,

compared with 9.7 % of the lower-section pupils. In this respect the values for the individual classes do not exhibit a great difference, although the distribution of the data gradually increases with the increase of the number of classes.

DETAILS FROM THE STUDY OF THE PEDAGOGUES' KNOWLEDGE OF THE CHILDREN

Studies connected with the pupils' relation to the school convince us that the level of the pedagogues' knowledge of the children is the key question in the entire pedagogic activity. In essence it depends on this, as a psychological condition, as to what will be the extent, under the present conditions of mass education, of the individual dealing with the pupils, the closeness to the children of the teaching and training methods, and their adaptedness, i.e. the child-centredness of the school. The importance of the problem is further increased by the observation that the prolonged success or failure of the so-called modern methods /programmed, group education/, and even of the initiatives connected with the organizational transformation of the school /whole-day school, etc./, are organically correlated with the teachers' view as to the children. Following this it is understandably necessary to carry out a study of what and how much the practising teachers know of the personalities of their pupils. Our aim was to use an approximately exact method within the limits of our possibilities to measure the extent of the knowledge of the teachers and trainee teachers with regard to the children, the systematization of the knowledge, and its determining role in the conscious personality-developing work. Of course, we reckoned with the fact that it is not possible to explore this complex problem in its entirety, and particularly in its depth. In this respect the examination is only a means for us to discover what correlation there is between the teachers' knowledge of the children and the development of the pupils' relation to the school.

The comparative measurements were made among the teachers in the schools of two districts and one town. The pupils and teachers involved in the examination were selected by the rules of represen-

tative sampling. Accordingly, the teachers of 180 lower-section, 300 upper-section and 190 secondary school classes were asked to prepare within 5 days personality-descriptions extending to everything on all the pupils in their classes whose names began with K, L and N. No technical instructions at all were given with regard to the description, since we wished to discover the actual situation. The requirements were compiled with the aid of a personality-description sample, and then a specific points scale was constructed. In this way we arrived at percentage values from the ratio of the number of points fixed in the requirements and the number of points attained.

After the completion of the first examination, a series of 12 psychology lectures was organized /Psychological University Extension/. The lecturers classified their subject-matter into three themes:

- /a/ Fundamental questions of the modern interpretation of the personality.
- /b/ Correlation of the age-characteristics and personality of pupils of school age.
- /c/ Recognition of the pupils' personalities in the school.

After the completion of the course, two years after the first examination, the same teachers were again asked to prepare personality-descriptions, this time of the pupils whose names began with B, H, J and V. The descriptions thus obtained were then also converted to points as in the evaluation of the first examination, and the data were processed statistically too. Finally, the values obtained in the first and second examinations were compared.

By consideration of the above, the evaluation of the study of the knowledge of the pupils' personalities was performed in accordance with the following structural system:

- I. Knowledge connected with the pupils' personality-history, antecedents, previous life
- II. Characteristics of the state and development of the

intellectual abilities

III. The pupils' character and moral features and characteristics of their behaviour forms

IV. Knowledge relating to the state of the personality

V. Characteristics relating to the tendencies of the personality

Data on the pedagogues' knowledge of the children /based on the two examinations/

I. Knowledge connected with the pupils' personality-history /antecedents/ and the present social situation of the family

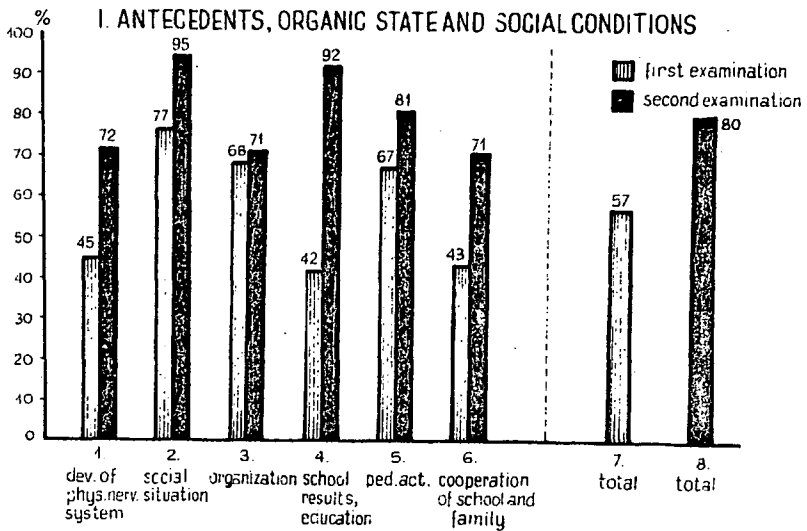


Figure 10

The values of the knowledge of the pupils' personalities can be studied in Figure 10.

The columns of the Figure clearly indicate that the 12 psychology lectures held in the interest of the study of the person-

ality, and then the treatment of the relevant more important literature, produced the desired result. Comparison of the first and second examinations shows that one of the most important changes was that a uniform and essence-giving description was generally obtained as to the basic questions of the antecedents. There was an encouraging improvement in the value of the knowledge referring to the physical and nervous state /+ 27 %/, Knowledge connected with the social situation increased by 18 %, that relating to the organization of the family by 3 %, that on the level of education /school results/ by 50 %, that indicating the pedagogic activity of the family by 14 %, and that concerning the cooperation of the school and the family by 28 %. In the first examination the knowledge of the antecedents was classified as average /57 %/. On the second occasion this improved to good /80 %/, and in certain fields was even excellent. Behind the numerical increase it is possible to find an improvement not only in the amount of knowledge, but also in the recognition of those physical, nervous and environmental correlations which have such a decisive influence on the development of the personalities of the individual pupils. On the basis of the personality description, 80 % of the teachers questioned already understood the interrelation of the antecedents and the further development of the personality. This is proved among others by the fact that in the second measurement only those events in the antecedents were listed which play a determining role in the organization of the personality.

II. Knowledge connected with the development and the actual state of the intellectual abilities

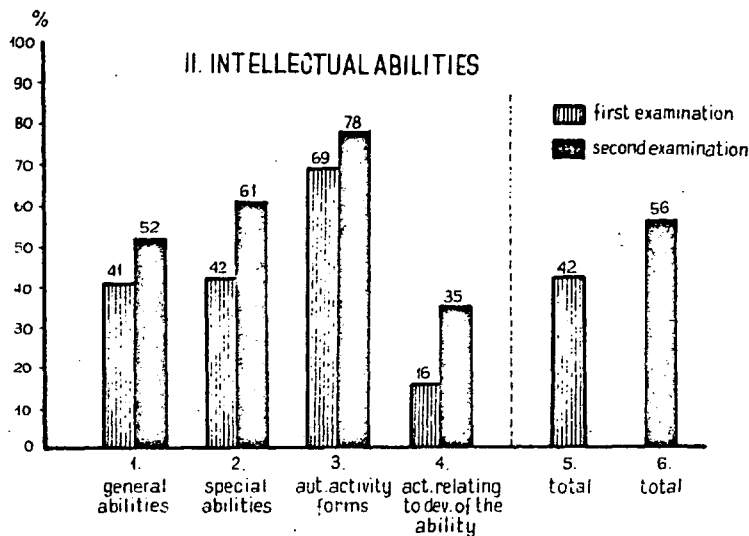


Figure 11

Values of the first and second examinations

After the course dealing with the personality-psychology and the recognition of the pupils' personalities, the measured values exhibit an average increase of 14 %. There were also considerable increases in the knowledge relating to special abilities /19 %, II,2/ and the development of the abilities /19 %, II,4/. More moderate increases can be observed with regard to knowledge of the general abilities /11 %, II,1/ and inclinations and skills /9 % II,3/. In the second examination the knowledge of certain areas of the pupils' abilities was more uniform, and an attempt to discover a dialectic correlation between the mental processes of recognition had become general. It was almost with delight that our colleagues discovered the significance of the mental processes of recognition ensuring the organization of the ability and the other mental

phenomena /in this relation accessory mental phenomena/, for example the role of sentiment, will, character, etc., in the continuous reorganization of the ability.

III. Features of character and moral behaviour

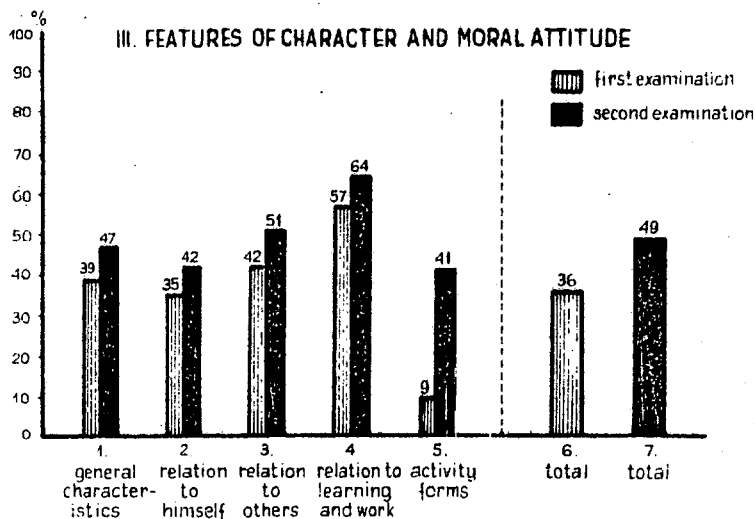


Figure 12

Values of the first and second examinations

After the thorough study of the recognition of the pupils' personalities, the average value of the information referring to the character and the moral behaviour increased by 13 % /III,6/. According to our calculations, behind this it is possible to observe an increase of about 7 % in the quantitative relation, and 7 % in the motivation and organization relation. The best result, an increase of 32 %, was attained in the field of the activity forms, which proves that in the view of our colleagues the establishing of facts is only a means, and they rather pay attention to how the given pupil can be developed. In the other fields /general

features of character, relation to oneself, to others, and to learning/, the results are much more modest, and exhibit an average increase of 7-9 %. This latter finding also means that the majority of our colleagues understood the fact that the character is formed as a result of the organization of the mental processes and the other features of the personality.

IV. Fundamental factors determining the state of the pupils' personalities

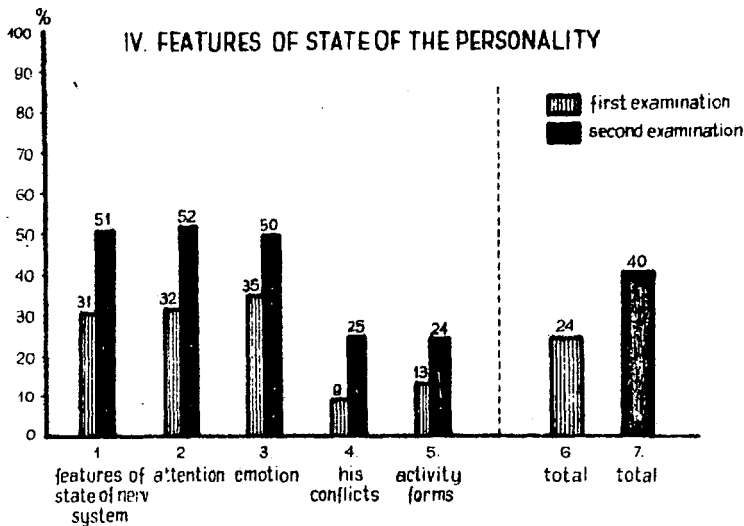


Figure 13

Values of the first and second examinations

Within the average value there are outstanding increases in the values of the knowledge of the nervous condition /20 %, IV,1/, the attention /20 %, IV,2/, the conflict situations /16 %, IV,4/ and the intellectual sphere /15 %, IV,3/. The increase of 11 % in

the activity forms relating to the development /IV,5/ must also be regarded as a significant advance.

The research data of the second examination permit the finding that within a comparatively short time it is possible to create personal conditions whereby the form-masters, knowing every pupil, can direct the continuous development of their personalities.

V. Main features indicating the pupils' tendencies

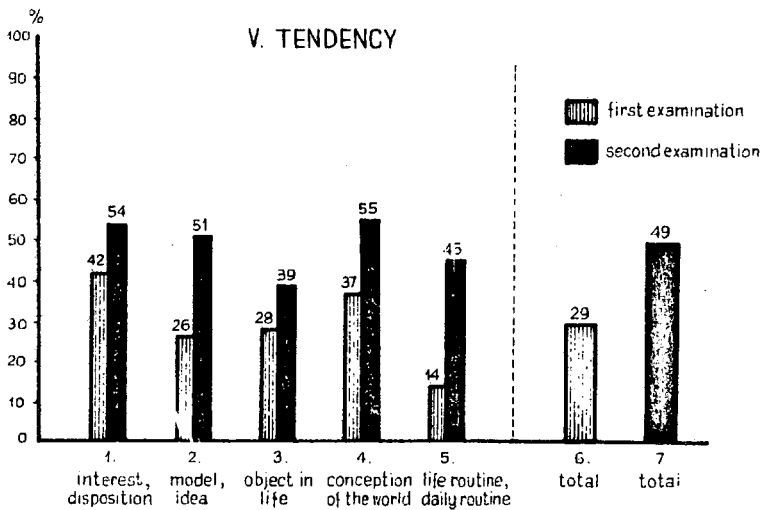


Figure 14

Values of the first and second examinations

Study of the statistical data shows that in the first examination the average of the knowledge regarding the tendencies was 29 %, whereas in the second examination it increased to 49 %. It was surprising to find the pedagogues' ignorance with respect to the ideals, the way of life and the aims in life. At the same time

our colleagues did possess appropriate knowledge in the fields of the pupils' interests and views of life. In the second examination the results obtained were better by 20 %, which reflects a more conscious view of the children.

SOME DATA ON THE EXAMINATION OF THE SCHOOL BEHAVIOUR FORMS OF THE PEDAGOGUES

The pedagogues may determine the orientations of the pupils towards social values, and whether or not these become inner convictions /often for life/. The personal-human medium they produce /teacher-pupil relation/, and the group relations /psycho-social factor/ developed in the groups directed by them /class, youth organization, pupil circle/, carry ethical and tendential /interest, aim in life, conviction of view of life/ "experiences of belonging". Only that person is capable of selective activity, in whom the social systems of values have become inner experiences and convictions. A decisive role is played in this by the personal human effect of the pedagogue. The teacher's behaviour similarly has an extremely important influencing role in the conversion of the requirements of the micro and macro environments /external factors/ to an inner social "I model", in the self-realization and in the self-perfection.

The school behaviour forms of the pedagogues are examined in four areas: /1/ the intellectual activity /scientific preparedness, ability to transmit, organizing ability/; /2/ the character and moral behaviour forms; /3/ the behaviour forms connected with the directioning; and /4/ the characteristics of the state of the personality. In the course of the examination an answer is sought to the questions of how and as what the pupils see their teachers, and at the same time the opinions of the teachers about themselves and each other are investigated.

Of the behaviour forms outlined above, in this article only mosaic-like sketches will be given with regard to the most frequ-

ently occurring forms of the intellectual activities of the pedagogues.

Among the tasks of the pedagogue, he must extract from the mass of scientific and relationship information, and give life to that which is most important for the social development /the social self-regulation/. The pedagogue who, by means of his intellectual activity, ensures the solution of the above-mentioned tasks; is a "key-man", and one of the most important performers of both the selecting and the passing-on functions.

Depending on the given systems to a large extent, the level of this special self-regulation of the society is determined by the historically expected maximum developmental level of the abilities of the pupils and teachers. This means primarily knowledge of the cultural information, but at the same time it is also expected of the pedagogue that his work should be constructive, creative and augmenting in some special field. The pedagogue can fulfil his commitments only if he is familiar with the field of his special subject on a scientific level, and to a certain extent an active scholar in it; at the same time, he must be able to deal with the material to be passed on to his pupils in a way which is beyond reproach from a didactic point of view.

Since the teacher working in an up-to-date way is by no means merely a mechanical intermediate, but ensures the cooperation of the pupils by means of reconstruction of the material, he must also be a good organizer.

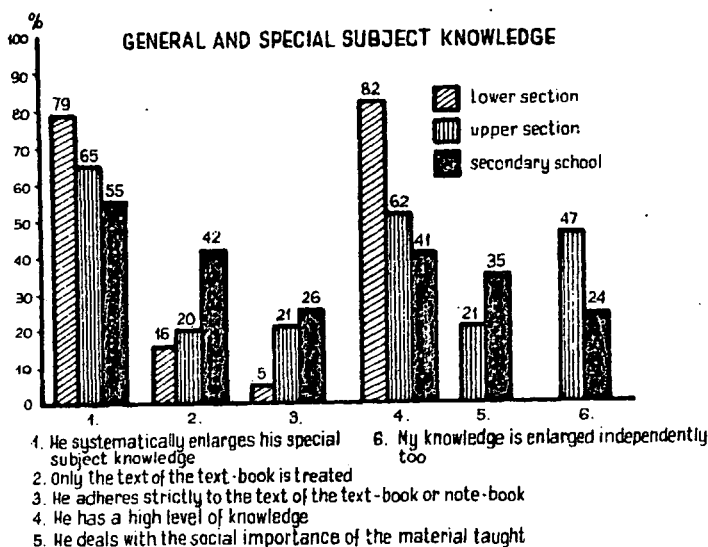


Figure 15

Let us consider the main types.

/a/ The teacher systematically enlarging the knowledge of the special subject

It is well known that the 6-14-year-old pupils included in the examination turn ever more decidedly towards the world, and to a large degree are aware of the things and events in their environment. They become increasingly able to free themselves of their one-sided subjective intentions and desires, and to view the world more impartially. It is understandable that they judge the teaching lessons partly according to how much of the unknown world these disclose to them. They state that 65 % of their teachers systematically enrich the compulsory school teaching matter with material which is interesting and life-like for them. The pupils regard as supplementation the teacher's illustrations, the presentation of experiments, reading from reference books, the use of lexicons,

outings, the seeing of films, museums and archival material, the recounting of anecdotes, the reports of true events and adventures, etc. They particularly appreciate it if the teachers introduce the most recently published books and other modern material during the teaching of the concrete school themes. We observed that 8 % of the teachers of Hungarian to classes 7 and 8 in the field examined regularly make the pupils read, or read together the most recent literary works /details from journals or books/. 81 % of the pupils in the classes of these teachers are really enthusiastic for the literature lessons. Only 2 % of the pupils remained completely indifferent. Three years later the pupils of three such classes /108 children, of whom 55 % had become secondary school pupils, 40 % industrial apprentices, and 5 % unskilled workers/ were asked which of their school experiences they looked back on most gladly. 77 % of them mentioned first the literature lessons, while since then 85 % of them regularly read and are familiar with the literary journals, together of course with the most recent Hungarian poets and writers. The most important feature in this is that the pupils were linked to the concrete functions of the social life by the school teaching lessons. The behaviours of two or three teachers of such type not only determine the direction of development of the pupils' personalities, but endows them with a certain balance, strength and dynamism. It is surprising that the higher the class attended by the pupils, the more they experience and live through the teaching lessons, as if the teacher's supplementation decreased. In the course of our examinations we came to the conclusion that the positive relation of the pupils to the school is determined to a large extent by the supplementation of the material of the individual subjects in conformity with the developmental level of the given class. Naturally, this problem is inseparably related to the enlivening of the teaching material. Our examinations provided numerical confirmation for the general argument that the more conservative material passed on by the school at the expense of up-to-date information, the greater the probability that the pupils will

accept it with indifference and as a burden.

/b/ Teachers sticking rigidly to the text of text-books or notes

In this respect, the pupils of the upper sections state that 20 % of the teachers use only the text of the text-book in the teaching of the school material. The pupils put it in this way: "I do not like to go to school, for there the teachers only teach us boringly from the text-book" /class 8, 9/. Most of them complain of being forced to complete physical and psychological activity. Many of them suffer from lack of experiences, and from mechanical, uninteresting, dry and lifeless teaching lessons.

/c/ Teachers sticking rigidly to the text of text-books or notes

In the view of the pupils of the upper sections, 21 % of the teachers stick rigidly to the text of text-books or notes. Not only is this behaviour form related to what was said in /b/. In the majority of cases these are the same specialist teachers who think only in "trite commonplaces" and forms, and rigidly in accordance with the text-book, and are uncomprehending of the adolescent pupils' strivings to "discover the world" and demanded activity. It also follows from the above, of course, that such a teacher can not interfere effectively with the process of education, and is incapable of directing it. Independently of their good intentions, these teachers do not understand that the school teaching and educating work today has the following main task: to teach the pupils to learn, and to create the basis of a permanent education, lasting throughout life.

/d/ Teachers with an imposing knowledge

One of the important subjective conditions of the development of the personalities of the pupils in the upper sections is that they regard certain members of their environment as models and examples to be followed. For various reasons, at the age of 6-10 years the majority of the pupils regard their teacher with wonder,

whereas, in accordance with the development of the abstracting ability, at the age of 10-14 years they are connected to the adults directing them by means of a new standard of measurement. The outstanding human erudition becomes the most important basic condition of the social connection of commitment and belonging. It is obvious that because of the limits to the pupils' development they are still unable to assess the knowledge and abilities of their teachers with an objective standard; nevertheless, in an indirect manner they are able to recognize the teacher with outstanding knowledge, so important for them. "He can speak with ease about the school teaching material" /class 7, 21/; "He draws our attention to surprising relations" /class 8, 74/; "We only marvel at his varied and deep knowledge" /class 8, 34/.

In the assessment of the teachers' knowledge, they consider it necessary to possess a good systematizing ability too. "Our teacher can divide the lesson material into groups very well" /class 6, 71/; "We can not learn history because neither our teacher nor the textbook arranges the material well. Most often I learn the lesson according to the text, but 1-2 days later I have already forgotten it. It is completely hopeless if the teacher gives us questions in oral examination. I consider it unfair that the teacher does not stress the important parts, but expects us to find these out for ourselves" /class 7, 11/.

/e/ Teachers presenting the social significance of the material learnt

One of the important motives of the positive relation to the school is that during their activity the pupils recognize the social importance of the material learnt, including the direct or indirect significance of their own role. The pupils judge that 21 % of their teachers /see Figure 1, 5f/ are concerned with this problem, i.e. essentially every teaching lesson and the teaching material passed on is put into such a utilitarian objective system. Thus, the material learnt fits in subjectively too into the in-

dividual's spheres of interest. Following such an effect there appear interest, enthusiasm, self-activity, adjustment, diligence, readiness to act, etc.

/f/ Teachers assisting the independent widening of knowledge

Let us next consider what percentage of the pupils are prompted by the above-mentioned positive behaviour forms of the teachers to supplement their knowledge in some field independently, by self-activity, and at the same time systematically. 47 % of the pupils in the upper sections claim /Figure 1, 6f/ that on the effect of the school, following the examples of their teachers, they have commenced independent activity of acquiring knowledge. The most frequent forms /according to occurrence/ are: /1/ becoming a reader /"... and since then I regularly go to the library"/; /2/ descriptions of journeys and interest in geographical discoveries and space research; /3/ study of works with historical themes; /4/ striving for the understandable expression of what is to be said; /5/ carpentry, carving, assembling of simpler machines, preparation of detector radio, telephone and simpler electric equipment, book-binding, etc.; /6/ verse and short-story writing; /7/ dealing with questions of chemistry; /8/ breeding small animals; /9/ needlework; /10/ insect collecting; /11/ stamp collecting; /12/ use of reference books and lexicons.

x x x

We have only touched on a few basic questions of the relation to the school, and have presented an outline of the more important parts to draw attention to the positive and negative factors existing in the psychic climate in the school. In connection with this, the relevant things to be done by the school can be summarized as follows: In this increased period of the systems of effects, it is of great importance for the society that the school must be able to create a particular positive atmosphere among the pupils, whereby, with mutual cooperation, it is possible to ensure the development

of the self-regulating abilities of the children, the development of their "self-consciousness", and the regulation of their systems of values and customs, i.e. their positive behaviour patterns, etc.

We have also strived to present data on the development of the relation to the school. The theme was examined with pedagogic psychological experiments relating to effects resulting in positive and negative connections. An account of the material of the experiments, however, exceeds the framework of the present study.

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Данные для педагогическо-психологического изучения
отношения к школе школьников

ИОЖЕФ ВЕЦКО

В предисловии под названием "Актуальность и цель изученной проблемы" автор изучает, как понижаются с середины нашего века "семейные" влияния, определяющие развитие личности школьников, и пропорционально этому увеличиваются "школьные" влияния.

Во второй части он сообщает применённые в представительном изучении методы: разговаривали с 1200 школьниками /в сентябре, в декабре и в июне/ в письменной форме /анкета, письменная работа/, и в форме запросов с помощью проекционных таблиц.

В третьей части под заглавием "Формирование отношения к школе учеников по первому изучению" автор сообщает по данным формирования положительных, отрицательных и смешанных /ученики с удовольствием и не с удовольствием ходят в школу/ отношений к школе учеников, и их тенденции.

В четвёртой части "Мотивы отношения к школе, связанные со школьной работой" автор изучает те главные мотивы, которые определяют положительные, отрицательные и смешанные отношения к школе учеников.

В пятой части "Детали из изучения поведения детей преподавателей" изучается, как учителя-практиканты знают в действительности детей в области их жизни, способностей, характера, морального поведения, личностей, направленностей.

В шестой части под заглавием "Данные об изучении поведения в школе преподавателей" показывается кратко интеллектуальная работа, требуемая от учителей.

Beiträge zu einer pädagogisch-psychologischen Untersuchung
über das Verhältnis von Schülern zu Schule

Dr.J.Veczko

In der Einleitung "Aktualität und Zweck des untersuchten Problems" erforscht der Verfasser, wie seit den 50-er Jahren die Wirkungen der die Persönlichkeitsentwicklung der Kinder determinierenden "familieorientierten" Faktoren verringert und die "schulorientierten" Wirkungen demgemäss vergrössert werden.

Im zweiten Teil werden die in der vorgenommenen repräsentativen Messung verwendeten Methoden dargelegt: 12000 Schüler wurden /im September, Dezember, Juni/ schriftlich /Fragebogen, Aufsätze/ und durch Interviews /unterstützt von Projektionsbildern/ befragt.

Der dritte Teil "Verhältnis der Schüler zur Schule auf Grund der ersten Untersuchung" stellt unter genauer Angabe der Daten die Entwicklung und die Tendenzen der positiven, negativen und bivalenten Verhältnisse der Schüler dar.

Im vierten Teil unter dem Titel "Die mit der Lernaktivität zusammenhängenden Motive des Verhältnisses zur Schule" werden die das /positive, negative, bivalente/ Verhältnis der Schüler zur Schule gestaltenden Hauptmotive untersucht.

Im fünften Teil "Einzelheiten aus der auf die Informiertheit von Lehrern über Kinder gerichteten Untersuchung" wird die tatsächliche Lage der Informiertheit von Lehrern über Kinder auf dem Gebiete des "vorlebens", der Fähigkeiten, des Charakters und des moralischen Verhaltens, der Persönlichkeitszustandes und der Einstellungen untersucht.

Im sechsten Teil "Einige Angaben zur Untersuchung von Verhaltensformen der Lehrer in der Schule" werden die vom Lehrer verlangten intellektuellen Tätigkeitsformen akizzenhaft dargestellt.

STANDARD GRADE

József Nagy



In research connected with the measurement of achievement the question of the grade is unavoidable. It is not coincidence that it is frequently necessary to turn to this problem. To date we have mainly attempted to provide an answer to the practical question of how practicable it is to convert the results of the measurements to a grade¹. In our earlier work, some features of the grade were naturally reported, but the theoretical basis has still not been explained. Since the grade, as one of the means of classification, has now come into the centre of attention as a result of certain distortions, it seems advisable to give an account of the theoretical principles.

It follows from the title and from the above that here only one of the many varied questions of the grade and the grading /which are virtually constant themes in the literature/ will be discussed: the grade as a scale and a means of measurement.

I.

The calculus, the grade, is based on the range scale. By means of the range scale the studied material can be arranged in an increasing or decreasing sequence according to a given property, and hence graded. The range scale is suitable only for the establishment of the range sequence. It does not tell us how much more, better or larger one value of the scale is than another.

The range scale denotes the values of the range sequence verbally, by symbols or by numbers. For example: "I do not like it", "I like it", "I like it very much"; or: "weak", "good", "excellent". It is obvious that "excellent" is a higher-ranking classification than "good", but it would be impossible to determine how much poorer "weak" is than "excellent". In this respect, nothing is

changed essentially if the verbal indication is replaced by letter symbols or by numbers. For example: "weak" = 1, "good" = 2, "excellent" = 3. Here, however, the value 3 is not worth three times as much as 1.

Accordingly, the numbers ascribed to the individual ranges, the order or range numbers, are not additive:

$$\begin{array}{rcccccc} \text{weak} + \text{good} + \text{excellent} & = & ? \\ 1 & + & 2 & + & 3 & = & 6 ? \end{array}$$

It is not difficult to see that the addition of range numbers has no objective sense. Although formally the total in the above example is six, since the extent of the interval between the range numbers is unknown, this is only a formal numerical value. If these numbers must not be added together, then clearly they are not susceptible to any mathematical operations.

This also applies to averaging, and thus the averaging of the grades is theoretically meaningless and unjustifiable. This is particularly so if the scale originally consisting of five values is divided into tenths to give 50 values, or into hundredths to give 500 values, and it is thought that the data obtained with the scale of five values becomes ten or one hundred times more exact merely as a consequence of the averaging.

Even if we can average with appropriate reservations, it is at any rate desirable to round off the numerical values obtained to the original range numbers, that is to integral values. Accordingly, the earlier solution, whereby a pupil's average school achievement could be "excellent", "good", etc., was less formal than the averaging practice of more recent years, which expresses the average in tenths.

Although it is true that the range numbers of the range scales are not additive, this does not mean that the verbal indication is of the same level as the indication by numbers. The indication of the range values by numbers is qualitatively of a higher order than

the verbal indication, because, although on a low-level scale, this is nevertheless a measurement, whereas the verbal designation is not. Range statistics offer excellent methods for the analysis of data obtained on the range scale. Further, the ranking of the verbal range includes many more uncertainty factors than the range numbers, and is much more cumbersome too.

It should be noted that the range scales are generally comprised of an odd number of range values /with a view to the better perceptibility of the middle value/, and most frequently have 3, 5 or 7 range values. Our grading system uses the range scale with 5 values, which /according to many measurement-theory experts/ permits the most reliable assessment.

The objectivity of a datum obtained with the range scale does not depend on the above properties of the range scale. The range is not subjective for the reason that measurements are made with a range scale. A datum is objective to the extent of the accuracy and concreteness of the definition of the measuring number. Such a definition must ensure that there is an unambiguous decision regarding the property of the given material: the range value which is to be attributed to it. If the grading is carried out by different persons, the given material should be graded identically by all of them.

It is well known that our grade does not possess a definition of the above level. This is the explanation of the subjectivity of the grading.

The question arises of why our definition is not sufficiently precise. Unfortunately, not because the authors did not formulate the section referring to the Procedure with the necessary circumspection. The situation is that the imprecision of the definition of the grades, as a series of numbers, arises from the function of the grade.

The function of the grade is a double one. /It should not be

forgotten that we are discussing it only as a means of measurement, and not its motivation and other functions./

Its first task is to indicate what proportion of the curricular requirements the pupil has mastered. According to this, for instance, a value of 5 denotes that the pupil knows the vast majority of the given curricular requirements. This function therefore attempts to assess the amount of knowledge compared to the requirements, or in other words the relation of the teaching matter and the pupil.

The second function serves to assess the relation between the pupils. The pupils are differentiated from each other according to the grade attained.

The investigations of Zoltán Báthory² and our own measurements too have shown that, although the distribution of the pupils according to grade is different from subject to subject, the grades in general fulfil this double function within certain limits of error.

Thus, when the result of assessment is a value of 5, this not only means that the pupil has mastered the vast majority of the curricular requirements, but also expresses the fact that the given pupil belongs in the group of the best of the pupils as a whole. This is so, independently of the natures of the school, the subject or the theme, the age of the pupil or the class attended.

The simultaneous fulfilment of the above two functions permits the considerable generality and comparability of which the traditional grade is capable.

However, the price of the high order of generalizability and comparability is the loss of the requisite accuracy and objectivity.

With reference to a single exercise, for instance, it is conceivable that the individual grades can be defined with satisfactory accuracy. It can be formulated exactly what conditions must be fulfilled for the achievement of a given pupil to be rewarded with a given grade. Thus, the grade would be of satisfactory accuracy

and objectivity, therefore, but only within the assessment of the given exercise. However, the accuracy and objectivity obtained would be at the expense of the comparability outside the exercise. /A 4 for another, more difficult exercise might well be worth twice as much as a 4 for an easier exercise within the given subject./ In addition, there is the comparability between the different subjects and the different classes, which would become completely hopeless.

It can readily be seen that with the increase of the objectivity of the grade the assessment of the relation of the pupil and the curricular requirements may become more exact /in theory, of course, not considering here the sources of error in the assessment/, while the accuracy of the assessment of the relation between the pupils, and the more general level of comparability of the grades, may decrease substantially.

To summarize: the strength and advantage of the traditional grade lies in its high degree of general comparability, but this involves the necessary concomitant price of the relatively low level of the accuracy and objectivity.

It is clear from this that the grade taken in the traditional sense, which simultaneously provides the two basic functions reported above, when ensuring very general comparability, can not be satisfactorily objective. It is also obvious that it would be senseless to strive for "absolute" objectivity.

A grade permitting general /standard/ comparison can originate only from a measurement. But why is there a need for a grade, a "standard grade", if the measurement results are available anyway.

II.

Let us now disregard the practical facts that today we still have few standardized subject tests and use few test papers from which a standard grade can be obtained, while it is perhaps not possible, or even advisable, to measure all pupil performances with

tests. In this respect, our present situation justifies the necessity of grading only from a practical point of view. /Of course, we must also pass over the perspective possibility of educational organizational forms which, at least in the fundamental primary school, would dispense with the need for the grade and assessment in their present conception. Such educational organizational forms can not be introduced either now or in the near future./

Accepting the present educational organizational forms as given, the question which arises is: what is the temporary justification of the expression of the measured results in standard grades?

The explanation of this lies in the nature of the psychopedagogic measurement. If we wish to measure in the interest of a more objective assessment, then a means of measurement is required. The basic data /the raw scores/ obtained with the means of measurement, however, can be compared with other scores only if these are obtained by the same means. As a consequence of the objectivization, therefore, the more general comparability of the results obtained has been lost. This is similar to the case of the more objective grades of the exercise mentioned above.

The raw scores of tests are particular, in themselves meaningless, useless data. They are not able to provide either of the two basic functions discussed in connection with the grade. For this reason, various methods have been elaborated to transform the raw scores in such a way as to lead to their comparability. Since the conversion of raw scores to a comparable form is one of the most important questions of psychometry, it is understandable that many methods have been devised. Nevertheless, all of these in effect are one or other variant of two basic possibilities, these being the two functions treated above. However, while the grade provides both functions simultaneously /the price of this being lower accuracy and objectivity/, there is no method which can transform the measured results to a single index that contains both functions.

Let us consider first the possibility of expressing the relation between the pupil's performance and the requirements.

The essence of this is that the total raw score attainable in the test is regarded as a 100 % performance, and the proportion of the requirement formulated in the test that is mastered by the pupil is expressed as a percentage of this maximum.

There are formally three possibilities for the expression of this proportion.

The most widely known solution is given by the ratio of the raw score attained by the given pupil to the overall possible raw score, multiplied by one hundred:

$$N\% = \frac{P}{P} 100$$

where $N\%$ is the performance attained compared to the requirement /level of attainment/, P is the total number of raw scores attainable, and p is the number of raw scores attained by the given pupil.

The second method, particularly readily used in measurements by the multiple-choice technique, is that exactly 100 elements /answer-selection questions/ figure in the test.

The third formal solution combines the advantages of the above two variants. This is attained by calculating the distribution ratios /percentage distribution/ from the total possible raw scores³.

The basis of comparison is thus the total raw score of the perfectly solved test. This system of comparison well expresses the relation between the pupil and the curricular requirement /but at least the requirement formulated by the test/. This has the consequence, however, that the percentage performances thus obtained can not be compared with the performances in other themes and other subjects.

If, for example, the national average in one test is 60 %, and in another 80 %, then it is obvious that a performance of 70 %

attained by a given pupil in the former test is not of the same value as a performance of 70 % in the latter.

And since it is impossible to compile tests which are of the same degree of difficulty, independently of the theme, the subject and the class, comparability of a more general level by this means, with the percentage index, can not be achieved.

From the data of measurements with tests it is possible to create scales which permit a comparison independent of the theme, subject and year: we thereby come into possession of a standard scale.

The most fundamental characteristic of standard scales is that, since a scale beginning with the natural zero point is not possible in the world of psychopedagogic phenomena, the average of the measurements is taken as the starting-point. The average performance is converted to zero, and the individual performances are expressed in relation to this.

The starting basis is the standard z score /see Figure 1, second row/.

The transformation is performed as follows:

$$z = \frac{x - \bar{x}}{s}$$

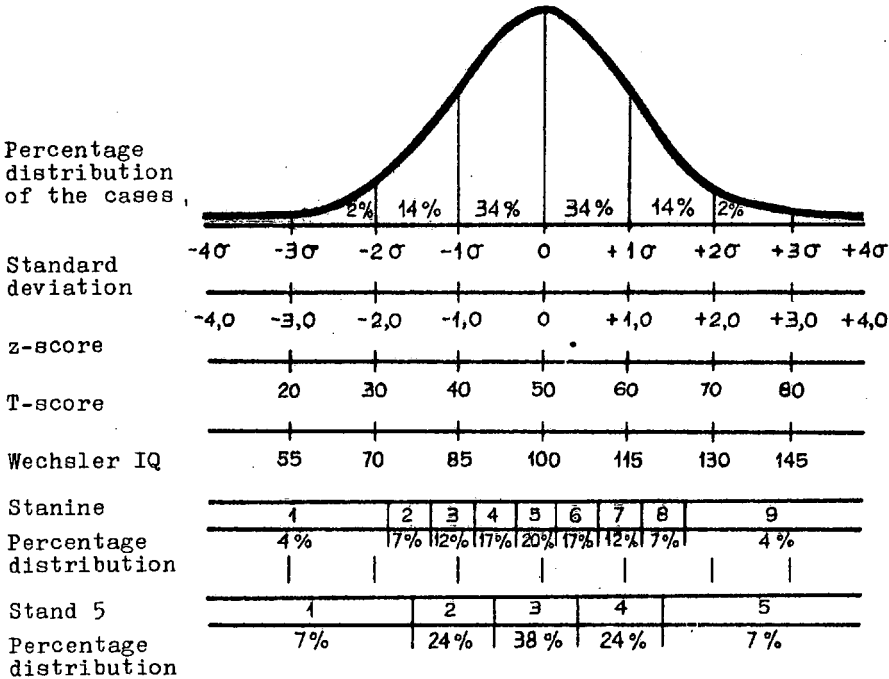
where \underline{x} = the sum of the raw scores attained by the given pupil,

\bar{x} = the average of the raw scores of the measurement,

\underline{s} = the standard deviation of the raw scores.

Figure 1.

POSITION OF THE STANDARD GRADE /STAND 5/ IN THE SYSTEM
OF STANDARD GRADES



For the reader not acquainted with statistics to sense the essence of the above formula exactly, let us take some examples. Let the average of the raw scores be $60 / \bar{x} = 60/$, and the standard deviation $20 / s = 20/$. If the performance of a given pupil is 60, i.e. equal to the average, then the value of the standard z score is:

$$z = \frac{60 - 60}{20} = 0$$

If the performance of a given pupil be less than the average /e.g. 50/, then the value of \underline{z} is negative, while if it is larger than the average /e.g. 70/, then \underline{z} will be positive:

$$z = \frac{50 - 60}{20} = - 0.5$$

$$z = \frac{70 - 60}{20} = + 0.5$$

As can be seen in the Figure, the values of the standard \underline{z} scores practically extend from - 4 to + 4. And as the Figure shows, the intervals between the values expressed by the numbers are equal, and hence these values are additive and are suitable for mathematical processing.

The standard \underline{z} score thus expresses the relation to the average performance. Consequently, whatever the content of the test, and whatever the class the measurement is performed on, the standard \underline{z} score ensures the comparability. No matter from what test it is found, for instance, that $\underline{z} = 1.2$, this is equal to a standard score of $\underline{z} = 1.2$ from any other test. In both cases the performance is at a distance of +1.2 times the standard deviation from the average. It is better by this amount than the average performance. We are faced here, therefore, with the much debated fact that the role of the gauge is occupied by the average pupils, and the others are related to this.

The questions of what the given average performance is worth, what level it means, and what relation it is in with the requirements, do not even arise here. This is dangerous for the reason that it may appear that there are no such questions, or that if so, then they are not of importance. The average may be predestined to appear as the central figure, but the essential question is nevertheless the extent to which the pupils on average /and the individual pupils concretely/ have mastered the curricular requirements, and not

where they stand in comparison to the average performance, or to the average pupil.

We have seen that the content, the percentage relation, gives an answer to this question, but it is not comparable with the results of other tests; the relation to the average at the same time permits comparability of a high order, but it gets out of touch with the requirements, the teaching material.

Since these two points of view can not be united into a single index without the loss of the objectivity, it appears advisable and desirable to use both indices.

The index obtained with the content, the percentage relation, is readily understandable for everyone, and can be well used with reference to the given test. It unambiguously shows what the pupil knows and what he must still learn. However, if we wish to compare the performances attained in several consecutive themes and to express them with a single index, the values expressed as percentages can not be added and can not be averaged. /In this respect one should consider the performances of 70 % obtained in each of the two tests mentioned above./ For this reason, therefore, the standard index discussed earlier is indispensable.

Because of the negative numbers and the cumbersomeness of the values expressed in tenths, it is customary to transform the standard z scale to derived standard scales.

Figure 1 shows the most frequently used transformed standard scales.

In the case of the T scores, the zero point of the z score, expressing the average, is taken as 50, and its standard deviation as 10:

$$T = 10 z + 50$$

For the above example, with a performance of $z = + 1.2$:

$$T = 10 \times 1.2 + 50 = 62$$

The scores of the widely known intelligence quotient /IQ/ are also derived from the standard z scores. Here, the average is 100, and the standard deviation 15 or 16. /These standard IQ's should not be confused with that obtained as the ratio of the mental and chronological ages./ Thus:

$$IQ = 15 z + 100$$

$$\text{or } IQ = 16 z + 100$$

The stanine /standard nine/ scale, with nine range values, was developed during the Second World War by the American Air-Force. As a result of its advantages, which cannot be given in detail here, its use has spread very rapidly in recent years.

$$\text{Stanine} = 2 z + 5$$

If, for example, $z = 1.2$, then the value in the stanine is:

$$\text{Stanine} = 2 \times 1.2 + 5 = 7.4 = 7$$

As can be seen in the Figure, the two extreme values are open. A value of even 11 may be obtained from the calculation, but all values larger than 8 are assumed as stanine = 9.

As a consequence of the greater scale of the stanine, each number represents such a large interval that it is advisable to determine what percentage of the pupils are associated with each value. According to custom, therefore, the proportions of pupils expected for the individual stanine values have been given below the stanine scale.

For instance, the stanine = 9 shows the relation to the average /5/, and also indicates that this performance is so high that it can be achieved by only about 4 % of the pupils. With this performance, therefore, a given pupil belongs among the best 4 % of the pupils.

If the distribution is not close to the normal, i.e. it does not resemble the bell-shape to be seen in the Figure, then this advantage of the stanine is naturally lost. /This question will be

returned to later./

On the basis of the Figure, the reader will certainly already have discerned that there is no obstacle to the transformation of the raw scores to any optional standard scale, whereby we can attain general comparability with the simultaneous retention of the objectivity.

In practice, however, in addition to those used so far, there are still three reasonable possibilities on the analogy of the stanine: these are standard scales with 7, 5 or 3 range values. Since a range scale with 5 values is in use for grading in Hungary and many other countries, the task is in fact to accommodate to this, and to fit the standard scale of the results obtained by measurement into this system.

On analogy with the stanine, the standard scale with 5 range values is termed standard 5, or in short stand5.

The solution of stand5 may be of various forms, depending on the value assumed for the standard deviation. The average is given by 3, the middle of the 5 range values on the scale.

In the studies mentioned in the introduction, experiments were made with two types of solution. Gradually accumulating experience and theoretical and practical considerations show that it is reasonable to select the variant to be seen in the Figure.

In the case of this variant, the intervals for the values 1 and 5 each contain about 7 % of the pupils, which is close to Hungarian practice. This solution gives the proportion of the pupils with a value of 1 below 1.5 times the standard deviation, and above 1.5 times the standard deviation the proportion of the pupils with a value of 5. $2 \times 1.5 = 3$ times the standard deviation is divided into three equal parts for the standard grade values of 2, 3 and 4. it follows from this that these values each cover intervals with a standard deviation of 1. Thus:

$$\text{Stand5} = 1 \times z + 3 = z + 3$$

Accordingly, only the average value of 3 need be added to the standard $/z/$ score to obtain the stand5 value /after the normal rounding, of course/.

In the above, the conclusion was reached that it must be established from the raw scores what proportion of the requirements has been mastered by the pupil. This is given by an index expressed as a percentage. In addition, there is also a need for some standard scale or index which permits general comparability. Of the many types of possibility starting from the standard $/z/$ score, in Hungary it appears that a standard scale with 5 range values can reasonably be fitted into the present classification system.

It has been seen that both indices are obtained from the raw scores. However, since the percentage index value is obtained by linear transformation, it is irrelevant whether the standard $/z/$ score is calculated from the data expressed in raw scores or in percentages. The value of z will be the same in both cases.

The possibility of further simplification arises from the circumstance that, in the case of a sample of given average and standard deviation, the individual stand5 grades are comprised of definite intervals.

Let us consider a test in which the national average is 60 % $/\bar{x} = 60/$ and the standard deviation is 20 % $/s = 20/$, and in which a pupil x achieved a performance of 75 % $/x = 75/$. The question is: what mark should be awarded for this performance from stand5?

On the basis of the relations reported above:

$$z = \frac{x - \bar{x}}{s} = \frac{75 - 60}{20} = \frac{15}{20} = 0.75$$

From this the stand5 is:

$$\text{stand5} = z + 3 = 0.75 + 3 = 3.75 = 4$$

It would be tedious to perform this calculation separately

for every pupil. For this reason, it is worthwhile determining the limiting values of the intervals. It can be seen from the Figure that the limit of the "fail" mark, for instance, begins at a score of 1.5 times the standard deviation. Since the standard deviation in the above example is $\underline{s} = 20$, this value is 30, and this is the distance from the average of the score where the limit of the "fail" begins. Deducting 1.5 times the standard deviation from the average, we obtain the upper limit of the 1, which is at the same time the lower limit of the 2, i.e. $60 - 30 = 30$.

We know that the three central values of stand5 embrace 1.5 times the standard deviation both upwards and downwards from the average, i.e. in all 3 times the standard deviation. An interval of unit standard deviation therefore falls to each of the three middle marks, and thus a very simple solution results. The value of the standard deviation is added to the limit of the 1 three times, one after another.

$\bar{x} - 1.5 s$	the upper limit of standard 1
$\sqrt{x} - 1.5 s/ + s$	the upper limit of standard 2
$\sqrt{x} - 1.5 s/ + 2s$	the upper limit of standard 3
$\sqrt{x} - 1.5 s/ + 3s$	the upper limit of standard 4
	and at the same time the lower
	limit of standard 5

In our example the limit of the "fail" is 30, while the value of the standard deviation is 20. From these data the limits of the other standars are:

1	below 30
2	30 - 50
3	50 - 70
4	70 - 90
5	above 90

We have thus obtained a key to the given test, by means of which the performance of the given pupil can be expressed in stand5. The performance of pupil \underline{x} above was 75.

By calculation it was established that this is equivalent to 4. This can be read off from the above key without calculation. The calculation of the key naturally involves the condition that the values of the standard deviation and the average be known, while its use is that it gives the relevant key to all standardized tests. With the above method the limiting cases can not be decided. Should a performance of 70 be a 4 or a 3? If it is considered advisable, the problem can simply be eliminated according to the rules of grouping, but in the end a decision as to which grade a pupil receives in the limiting cases should preferably be based on pedagogic considerations, rather than on some "absolutely exact" computational viewpoint. Thus, the use of the above solution is satisfactory.

It was mentioned earlier that in the event of normal distribution the standard grade expresses what percentage of the pupils belong to each grade /see the Figure/. However, if the distribution is not symmetrical /not approximately bell-shaped/, then these proportions are distorted.

It is possible to take the asymmetry into account. Such a procedure has been described in the book already referred to: "A témazáró tudásszintmérés kérdései /Questions of the theme-concluding measurement of achievement/", pp. 71-74. It is unnecessary to give an account of this method again here. We merely wish to point out that if the skewness is taken into consideration this resolves to a certain extent the extreme distribution of the proportions of pupils in the individual grades, but at the same time the equality of the intervals of the individual grades undergoes a distortion.

All this, however, is a problem only in the case of extremely high /above 75-80 %/ national averages. In the other cases, a situation approximating to that seen in the Figure is obtained; that is, the standard character of the grade remains. The distorting effect of the extreme averages and standard deviations somewhat distorts the standard character of the grade, no matter what method

is used to try to eliminate the consequences of the distortion.

To summarize, it may be stated that the performance in the standardized tests, expressed as a percentage, shows the extent to which the pupils in general, or the individual pupils, have mastered the subject matter. However, this index is not a standard, and can not be compared with the percentage indices of other tests. Accordingly, it is absolutely necessary to find some standard index too. Since a grading system with five range values is used in Hungary, the stand5 is the most appropriate for this purpose.

The tests used for university and other examination purposes, and also the most varied measurement and problem forms, are not standardized. Nevertheless, if the means of measurement are good, then the results obtained are objective. It is necessary to express the performance in these cases too, given as a percentage, on a scale permitting a more general comparison; i. e. to convert them to a grade corresponding to our conditions. Since the assessment system of these tests can not be based on a previous representative measurement, the use of the method reported above can naturally not result in a standard grade. It would be in vain to calculate the average performance of the pupils taking part in the measurement, and the value of the standard deviation. Since these data are not of general validity, the standard character of the standard grades calculated from them would also become uncertain.

In spite of this, in place of the various /often decidedly dangerous/ methods of conversion to a grade, it is desirable to introduce a better, "more standard" solution. A Table was reported in the Appendix to the above-mentioned book, for the conversion of the results of such tests to a grade. This Table is now reported in a further developed and simplified form.

It is a condition of use of this Table that we calculate the average of the performances, expressed as a percentage, of those taking part in the measurement. If the corresponding value is found

in the "Average" column, the series of data associated with this gives the key to the conversion to the grade.

Table 1

TABLE FOR THE SELECTION OF THE KEY OF THE PARTIALLY STANDARD GRADE

Average	Limits of grades					
37,4 and below	15	20	40	85		
37,5 - 42,4	19	38	63	70		
42,5 - 47,4	21	38	55	72		
47,5 - 52,4	23	40	57	74		
52,5 - 57,4	26	43	60	77		
57,5 - 62,4	29	46	63	80		
62,5 - 67,4	31	49	67	85		
67,5 - 72,4	33	55	75	80		
72,5 - 77,4	35	60	80	90		
77,5 and above	40	70	80	90		

The reasons that the grades thus obtained are partially standard grades are that the measurement is not representative, and that only the average is taken into consideration. The standard deviation is established by a relative standard deviation of about 30 %.

At the same time, the lower limit of the "excellent" here is fixed at 90 % for the high averages, since in such tests the uncertainty factor is more.

At present, and in the future, therefore, three types of grade will be in use: a standard grade based on the results of standard-

ized tests, a partially standard grade from the results of non-standardized tests and measurement and problem forms, and the grade obtained with a range scale by the traditional means. These three types of grade can be conceived as a unified system, in spite of their objectivities being of different levels.

While the vast majority of grades are obtained in the traditional way, the standard and partially standard grades make relatively little change or improvement in the objectivity and standard character of the grading. The increase of the proportion of the standard and partially standard grades /as a consequence of the gradual spreading of assessment based on measurement/ may clearly progressively increase the objectivity of the grading, and the more clear-cut comparability and standard character of the grades.

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¹ Nagy, József: Az elemi számolási készségek mérése és fejlettségének országos színvonala /Measurement and national level of development of elementary calculating abilities/. Tankönyvkiadó, Budapest, 1971. pp. 21-32. Ágoston-Nagy-Orosz: Mérések módszerei a pedagógiában /Measurement methods in pedagogy/. Tankönyvkiadó, Budapest, 1971. pp. 103-111. Nagy, József: A témazáró tudásszintmérés gyakorlati kérdései /Practical questions of theme-concluding measurement of achievement/. Tankönyvkiadó, Budapest, 1972. pp. 71-74 and a transformation table on pp. 142-143.

² Báthory, Zoltán: A tantárgyi osztályozás néhány mai jellegzetessége /Some current characteristics of subject grading/. Pedagógiai Szemle, 1968. No. 12. pp. 1077-1083.

³ See in greater detail in: Nagy, József: A témazáró tudásszintmérés gyakorlati kérdései /Practical questions of theme-concluding measurement of achievement/. Tankönyvkiadó, Budapest, 1972. pp. 63-70.

Стандартная отметка

ИОЖЕФ НАДЬ

В Венгрии существует пятибалльная система для оценки учеников. В прошлом десятилетии началось распространение использования тестов. Автор указывает на то, что шкала, используемая на квалификацию, должна ответить двум требованиям. Выполнение, соотносимое к требованиям, показывает процентный показатель. Но, это несравнимое с результатами других тестов. Поэтому нужны и стандартные показатели, дающие возможность сравнения. Автор знакомит читателя с сущностью стандартных шкал и вырабатывает пятибалльную стандартную шкалу, которая органически связывается с ныне существующей системой.

Он создал таблицу к нестандартизированным тестам, которая даёт возможность для перечисления процентных показателей на так называемую частично-стандартную отметку /см. таблицу/.

Standardskala

Dr. J.Nagy

In Ungarn werden die Schülerleistungen mit Hilfe einer Fünfgradskala zensiert. Objektive Tests sind nur in den letzten zwei Jahrzehnten verbreitet worden. Der Verfasser behauptet, dass Qualifizierungsskalas zwei Funktionen zu erfüllen haben. In einem Test wird die Leistung durch einen prozentuellen Index mit den Fächern verglichen. Dieser Index kann aber mit den in anderen Tests dargestellten Leistungen nicht verglichen werden. Um einen allgemeinen Vergleich verwirklichen zu können, sind standard Indizes notwendig. Der Verfasser beschreibt die Hauptcharakteristiken von Standardskalas und stellt den Typ einer standarden Fünfgradskala dar, die in das gegenwärtige ungarische Bewertungssystem von Schulleistungen integriert werden könnte. Für nicht standardisierte Tests wird eine Tabelle angegeben, mit derer Hilfe prozentuelle Indizes in eine sogenannte partielle Standardskala transformiert werden können. /s. die Abbildung/

THE CONCEPT AND DIDACTIC VALUE OF THE WORK SHEET

MARGIT VARGA - NAGY



Experiments with work sheets in the Department of Pedagogy in József Attila University began in 1964, under the direction of Professor György Ágoston. The experience acquired from such experience acquired from such experiments during the subsequent years permits the characterization of the main specifics of the work sheet, and the summing-up of its didactic value.

The work sheet occupies a particular place in the modern system of teaching methods, and is already used by a large number of teachers.

It can be used in the treatment of new material, in the accessory elements, in the primary fixation, in the construction of miniature systems, in the control of the understanding, and in the primary application. The use of work sheets is also of great importance when the application, systematization and fixation are promoted to independent phases.

Since the solution of the problems demands the recollection and application of earlier-acquired knowledge, the close connection between the acquisition of knowledge and its application can be followed well in this independent work.

In the introduction we present the work sheet "The plum tree relatives" prepared for the teaching of biology to the 5th class of the primary school.

Serial number

The fruits of the relatives of the plum tree

1. Compare the bisected fruits of the peach and the plum!

What covers: the kernel ?
the stone ?
the pulp ?

How do the skins differ?

The plum skin
The peach skin

2. Now compare the fruits of the peach and the apricot! /On the basis of the coloured pictures on pages 11 and 13 of the text-book/

What covers: the kernel ?
the stone ?
the pulp ?

3. What similar fruits can you see on page 14 of the text-book?

List them:
.....

4. Complete the following sentence!

The plum, apricot, peach, cherry, sour cherry and almond are all fruits.

5. Why do we call them all stone-containing fruits?

.....

6. Check your work on the basis of the first paragraph on page 11 of the text-book!

Have you answered correctly? yes no

7. State which part of the stone-containing fruit you have not studied yet! Give its name

Constructed by: Dr. Varga-Nagy

A. The characteristics of the work sheet

The name of the work sheet indicates the independent work carried out by the pupils with it. The work sheet is a short series of problems serving for the solution of a partial-task of the study; it is printed on a separate sheet /or written, typed, or drawn/. Its role is primarily of importance in the acquisition of knowledge. The primary use of the work sheet is to promote the pupil's mastery of the teaching material. The series of problems have the following characteristics:

a. The complex problems are generally split up into elementary problems /steps/, and the course /algorithm/ of solution of the problem types is elaborated.

In the work sheet presented above the examination of the fruit is a complex problem. One of the concepts in the curricular requirements is: stone-containing fruit. The text-book promotes the accentuation of the characteristics of the concept which are to be mastered. In this way, with the aid of the syllabus and the text-book the logical breaking-down does not give rise to difficulties. The features of this concept to be mastered are reflected in six facts. These facts are the content elements of the concept, by means of which the algorithm of the solution /achievement/ can readily be elaborated. /Each of the facts is also associated with an image /I/./

- | | | |
|------------------|----------|------------|
| | 2. ----- | stalk /I/ |
| | 3. ----- | skin /I/ |
| stone-containing | 4. ----- | pulp /I/ |
| fruit 1. ----- | 5. ----- | stone /I/ |
| | 6. ----- | kernel /I/ |

The steps are interdependent both as regards content and logically, and the unknown is linked with what is already known in such a way that the solution of every previous step forms the starting basis for the following step. On the work sheet given

above it was illustrated how the structures of stone-containing fruits are studied, starting at the centre and proceeding outwards.

The algorithm of the solution is given by instruction:

"1. Compare the bisected fruits of the peach and the plum!

What covers: the kernel ?
the stone ?
the pulp ? "

By means of the given algorithm the pupils learn by practice the manner of studying the fruit.

In the second task on the work sheet the pupils again work with an algorithm, but now the basis of examination has changed.

The solution of the third task demands a listing from the pupils. The coloured pictures in the text-book provide the facts for the solution of the task.

"3. What similar fruits can you see on page 14 of the text-book?

List them:"

The similarity can be established in the listing only by accentuating the essential elements.

In the fourth task the pupils must confirm that they have mastered the knowledge of the essential content elements of the concept, and can apply it /Stone-containing fruit/:

"4. Complete the following sentence!

The plum, apricot, peach, cherry, sour cherry and almond are all fruits."

The solution of the fifth task is an exciting step for the pupils for the reason that thereby they answer the question: "What are the fruits of the relatives of the plum tree like?" The whole series of tasks was prepared in order that the pupils, with the direction of the work sheet, and building on their own experience, be able to give an answer to the problem set. The results of their work to date are summarized in this solution.

The creation of the basis of motivation of independent study

forms the subject of separate provision in the phase of forming the series of tasks. /The shaping of the problem, the creation of various opportunities for consideration and activity, the guaranteeing of success by a step-by-step advance, the basis of a many-sided examination, varied combinations of questions, the development of the method of work into a custom, etc./

Depending on the nature of the task, the formation of the series of tasks is modified on the work sheets providing new knowledge, ensuring its application, and serving to fix it.

b. The checking of the solution of the task is ensured

The checking of the solution of the task should not be neglected in work with work sheets. Depending on the nature of the task, this exhibits a rich variety.

Our aim is for the checking too to become more and more an independent activity of the pupils. The realization of this as a general requirement can not be declared, however. It does occur that after the solution of more complex tasks collective checking is considered more fruitful.

The checking does not follow after the solution of each individual step, but generally only after the solution of the entire problem. The establishment of the position of the checking also depends on the nature of the task. It could be said that it is incorporated adaptably at a given point of the series of tasks.

c. A combined question technique is used

The work sheet given above provides a good basis for the illustration of the combined question technique.

In the independent work with the work sheet the questions appear in a combined form, and the means of answering varies accordingly in the series of tasks on each work sheet. We are of the opinion that the combined answering possibility has a favourable effect on the pupils' activities.

The content of the partial-task, the logical structure of the knowledge, and the psychological and didactic points of view, all play a determining role in the construction of the questions and answers. Their application is not optional, but is determined by a number of factors.

d. Instructions and information are given

The pupils' studying is made effective on the work sheet by exact directions. The instructions provide a guide to the carrying-out of both the mental and active performances. Let us consider the instructions on the work sheet from this point of view.

The instructions to the first and second tasks, for instance, demand the performance of mental operations of comparison. As the first step of the comparison the identical features are recognized, and then the differences are required.

The reason why the research and planning with regard to the possibilities of active performance are considered important, is that the effectiveness of the discerning activity is increased if it is associated with practical activity.

e. Aids are inserted

Aids are unconditionally necessary in independent work with work sheets. The aids form those objective conditions which promote the solution of the task. The text-book frequently features among these aids. Reference is made to its pictures, its figures and its data. At other times the working exercise-book proves useful as an aid. In the work sheet work the pupil does not lose touch with the traditional teaching means.

The role of the aids is further enhanced by the fact that on the work sheet there may be a complex task, the solution of which is impossible without the aid.

The aids assist in the solution of the individual steps, and thus are connected to them in the series of tasks.

f. Reaction to "reporting-back"

The work sheet gives rise to a wide network of connections. A good connection is created between the teacher and the pupils. The teacher reacts to the "reporting-back" received, and modifies the further activity. The connection which develops between the work sheet and the pupils should not be forgotten, and there is also an appreciable relation between the teacher and the series of tasks he has prepared.

In the work with the work sheets, the connection which emerges on the surface is always that which appears justified at a given point of the teaching process. If the pupil has a problem in the solution of the task, the teacher hurries to his aid. If the success of the pupil is coupled with his work with the work sheets, then he likes to work with them. If one step in the series of tasks can be solved by only a few pupils, then an amendment is necessary in the series.

B. The didactic value of the work sheet

The work sheet is one of the means of making the study more intensive. With its help the pupils can carry out independent activity in the realization of every didactic task. The role of the independent work is important, particularly in the treatment of the material, for the independent study increases the effectivity of the mastering process. The didactic value of the work sheet can be summarized fundamentally in one statement: it permits work based on independent activity. This function of the work sheet brings to the surface immeasurable didactic value, among which the following are considered to be of importance:

1. In task solutions carried out with the work sheet the function of the application is extended.

The development of the knowledge becomes of an applicative nature, since the solution of the tasks requires the recollection and actualization of the earlier acquired knowledge. In every task of the series of tasks the application of the knowledge appears in

the solution as a precondition. As a result of this, in the long run the knowledge is of a dynamic nature, being in the stage of development, the conceptions widen, are enriched with new elements, and deepen.

The first phase of the development of the knowledge, the establishment of the facts, may be the result of independent activity. In the teaching of biology, geography and chemistry the pupils frequently become acquainted with the facts /objects, phenomena, processes/ by observation of concrete reality. At other times the reality is presented by maps, figures, pictures, models or films. If the pupils are faced with the facts, then on the basis of their previous knowledge all of the pupils can make findings from them. The tasks of the work sheet give a guide, and help in the fact-finding work of the pupils. Recognition and establishment of the facts may be the result of independent pupil activity in innumerable cases.

The series of tasks often compels the pupils to carry out the analysis independently. The series of tasks directs the thinking activity of the pupils, and as a result of this the pupils may pass on from the concrete fact to the concept. In the course of their considerations predominance is given to the establishment of similarities and differences, to the extraction of the essence, and to generalization.

In every task solution it is easy to follow the close connection between the acquisition of knowledge and its application. By way of illustration, let us look at a work sheet prepared for the study of the leaf and used in the 5th class of the primary school.

Serial number

The leaf of the walnut tree

Compare the leaf of the walnut tree with the leaf of the plum tree!
/Help is given by the coloured picture on page 16 of the text-book/
Decide which of the following statements is true for the leaf of
the walnut tree! /Underline your answer!/
.....

There is one leaf on a stalk.

The leaf is composed of several leaflets.

The walnut tree has a composite leaf.

Why do we call the leaf of the walnut tree a composite one?
.....

What is the leaf of the walnut tree like? /Answer in only one
word! /
.....

Voluntary task: Name at least one more tree which has a composite
leaf!

Constructed by: Dr. Varga-Nagy

2. The pupils acquire effective knowledge by the constant independent application of knowledge

As confirmed by experiment, knowledge acquired by means of independent thinking activity is more permanent, for it comes about as a result of independent effort, its basis being formed by the understanding. If the results of measuring test papers given at the end of the theme are evaluated statistically, then it is seen that by and large the pupils' knowledge relating to the whole of the theme is the same as the partial knowledge. The performance of the pupils does not decrease, therefore, with the application of summaries.

Work sheets were used in the geography lessons to the 5th class in six primary schools. Below is given the average of the performances of the six classes in the work on five work sheets, and this is compared with the level of knowledge shown in the theme-concluding tasks.

Performances in % points

Class	No. of work sheet					Theme- -concluding
	1	2	3	4	5	
A	87.93	83.41	77.43	86.03	81.77	79.40
B	49.75	62.71	57.87	73.33	70.52	76.48
C	54.89	63.48	59.41	83.46	85.50	80.20
D	41.19	57.74	65.66	65.88	65.71	77.60
E	77.63	84.58	63.60	83.96	80.77	82.10
F	76.73	91.58	65.67	81.88	91.80	77.10

The average of the achievements of the six classes in the work with the theme-concluding test sheets is 79 % points.

Let us consider the spread of the achievement in the Table.

Performance in % points	Number of pupils	Percentage distribution of the pupils
47-52	1	1
53-58	6	3
59-64	9	5
65-70	18	10
71-76	38	22
77-82	34	19
83-88	39	22
89-94	20	12
95-100	10	6
Total	175	100

On the basis of the Table, the effectivity of the work sheet can be established in various respects.

/a/ In the six experimental classes no pupils at all had a performance of less than 47 %.

/b/ The average /79 % points/ was exceeded by 59 % of the pupils.

/c/ The spread is small.

/d/ This result is also of significance from the point of view that the high average is given not by a majority of excellent pupils, but by the majority of the pupils who came up from lower performance levels to rank among those achieving a higher result. Let us look at a graphical illustration of these data. The graph shows the standard deviation $\pm s$.

79 % points

Number of
pupils

Performance in % points

The graph gives rise to the following findings:

/a/ The performances of the experimental classes are balanced. The data are spread in the range of 50-100 % points. The majority of the pupils are concentrated about the average performance.

/b/ The most characteristic frequency in the higher performances in the experimental classes is given by the 39, the 38 and the 34 pupils.

3. The work sheet records the performance without a special measurement, and permits its checking.

The result of the activity with the work sheet shows the average performance of the class. However, the teacher must always be able to perceive the individual performances too, within the average performance. Thus, it is important for the teacher to know what result is achieved by the weaker pupils, and what is the distribution of the pupils of various grades in the solution of the individual tasks. It is therefore worthwhile examining the development of the performance from several points of view. For example: How does the performance vary in the solution of various didactic tasks? How does the performance of the individual pupil develop? Simply as an example, it is shown below how the average performance of the class developed in the solutions of various didactic tasks in the theme "Fruit trees", studied by the 5th class in Biology:

In development of knowledge	68 %
In checking of the understanding	85 %
In primary fixation	84 %
In theme-concluding measurement	73 %

It can be seen that the performances of the pupils are different in the solutions of the various didactic tasks. For every pupil the greatest deficiency can be observed in the act of recognition. This indicates that more emphasis must be placed on the development of the ability to think, and on the independent work of the pupils.

It is worthwhile to examine the distributions of the performances in the development of knowledge and the theme-concluding measurement:

Performance	Development of knowledge	Theme-concluding measurement
80-100 %	8 pupils	11 pupils
70-80 %	9 "	4 "
50-70 %	4 "	14 "
30-50 %	8 "	- "
Total	29 pupils	29 pupils

While 8 pupils had performances below 50 % in the development of knowledge, there was a favourable development in the level of knowledge of the pupils in the measurement relating to the whole of the theme. In this not a single pupil had a result below 50 %.

The teacher knows still more if he takes into consideration the distribution of the pupils according to grades within the average performance. As a random example: the study average of the pupils in the 5th class for geography was 3. This average was made up from the following grades:

Grade	5	4	3	2	1	Total
Distribution of pupils according to grade	5	4	9	8	3	29

At the end of the school year, in a work sheet study of the agriculture of Austria the pupils received the following task:

/Development of knowledge on the basis of a map and pictures/
Of which of the following is there least? Underline your answer!

Woods Meadow and pasture Arable land

Of which of the following is there most? Underline your answer!

Arable land Meadow and pasture Woods

26 of the pupils solved the first part correctly and 21 pupils

tion of the essence, the following reasons can be listed:
 method of study is ensured. Restricting matters only to the accen-
 that it is the work sheet by means of which the practice in the
 of the condition and the result is realized. Proof is required
 activity with the work sheet, and thus the dialectic interaction
 mastering of this method of study is also a result of independent
 acquisition of knowledge by the pupils while at the same time the
 Learning the method of study by practice, promotes the fruitful
 ation with the material in part independently.
 great problem to the pupil who carries out the primary familiariz-
 of the learning. The learning of the material does not cause a
 final stage, with the fixation, but already with the initial act
 lesson. Thus, the independent study does not begin only in the
 The pupil begins the independent learning during the teaching
 process.

standpoint in principle: the dialectic interpretation of the study
 practice the method of study based on independent activity. Our
 used in the acquisition of knowledge for the pupils to learn by
 In the first stage of our experiment the work sheets were
 tivity.

4. As a result of the use of the work sheet the pupils had
 learned by practice the method of study based on independent ac-
 For this is explained by the following point.
 the weaker pupils had pulled up to be among the good. The reason
 It can be well followed that by the end of the school year

Grade	5	4	3	2	1
Distribution of pupils according to grade	5	4	9	8	3
Number solving first problem correctly	5	4	9	6	2
Number solving second problem correctly	5	3	6	5	2

the second part. Let us consider the distribution of the pupils according to grade in these results.

1. The pupil learns by practice the procedure of the solution of different types of tasks.
2. The pupil learns by practice the thought operations.
3. He gradually becomes familiar with the manner of becoming independent.
4. He applies his knowledge systematically.
5. His learning habits develop.
6. The motivation is multidirectional.

The practice acquired in the independent work also has a favourable effect on the frontal class work. The amount of direction may decrease, and its level may be increased. For example: it is sufficient to ask the pupil to carry out a comparison, and he will carry out the identifications and differentiations for himself.

5. The work sheet considerably promotes continuous feed-back.

An important role is played in the attainment of the results by the new situation which the work sheet creates between the teacher and the pupils. The teacher obtains accurate information about the activity of the pupil, and can react to this.

Let us consider the statistic data regarding a 5th class pupil, and the development of his level of performance in the various didactic tasks within a theme. The pupil's performance developed in the following way:

In development of knowledge	30 %
Im recitation	90 %
In the checking of understanding	40%
Theme-concluding	55 %

The data show that this pupil achieves a very fluctuating performance. The main role in his achievement is played by his great diligence. He acquires his knowledge by prolonged repetition. Because of inaccurate observation, even the establishment of the facts is defective, and in general he draws incorrect conclusions and does not perceive the essence. The teacher recognizes these

deficiencies, and can direct the pupil's activity in the common work so that with persevering work he eliminates the disadvantages.

In task solutions with the work sheet the standard errors can be corrected at once. The teacher sees where there is need for supplementation, for explanation, for application, or for fixation; i.e. his further activity is based on the information obtained.

6. The forms of the work sheets can be adapted flexibly in their solutions, their contents, and their requirements, and also in the nature of their evaluation, for the progress of the pupils.

The didactic value of the work sheet is well established by the logical advance in the independent activity. In the task solutions the pupil becomes familiar with the way to become independent.

/a/ The advance is asserted in the formal solution of the work sheet itself. In the initial stage of the work with the work sheet, for example, the fact-finding work of the pupils is facilitated by numbering the facts to be listed:

"1. Find the identical layers in the fruits of the walnut and the almond!

1.
2.
3."

In the following stage the numbers may be left out, and the places where the facts are to be written are simply indicated by dotted lines:

"Name the parts of stone-containing fruits!

-
-
-
-"

The pupils receive less assistance if the facts are to be

listed one after another; for they do not know the number of facts required:

"List the known stone-containing fruits!

/b/ The success of the task solution primarily depends on the advance achieved in the content. At the beginning of the work the work sheet contains a greater amount of and more detailed information and instructions. The establishment of the facts is based on descriptive material. The pupil carries out the comparison in accordance with empirical data. For instance, he compares the bisected apple with the bisected pear according to definite points of view, in order to establish the identical features; he then extracts the essence and performs the generalization. Thus, the direct connection of the subject with the object is ensured with the aid of the descriptive basis, by means of the activity. This connection is loosened in the problem solutions, which requires a continually more complex operation of thinking.

We see that the content of the task influences the thinking operations to be completed, and we have made the initial efforts to influence the development of the pupils' thinking with the aid of the work sheet work.

/c/ In the requirements too the advance has been ensured. The requirements are adjusted to the performance. For example, the rates of progress of the individual pupils are different. The work tempo is enhanced by stimulation. For instance, the three pupils whose work is completed correctly first can receive a grade. The rate of the work can generally be raised only slowly. In the experimental stage little attention was paid to the development of the working tempo; the phenomenon was observed only when it was found in the work with the 17th /theme-concluding/ test paper in the 30-hour theme that the solution required 20-25 minutes in the experimental classes, and 40-45 minutes in the control classes. The means to raising the working tempo is the more frequent insertion of independent activity.

/d/ The advance achieved in the evaluation may also contribute to the results of the activity with work sheets. While the performance does not achieve the desired level, only qualitative evaluation can be performed. The excellent performance is highlighted, and attention is drawn to the deficiencies. The performance is later expressed as a percentage. Our experience has convinced us that this form of evaluation is of importance as regards the development of the correct relation of the pupils to the work. The pupil does not receive a mark, but he does know his percentage performance. He reacts very significantly to a change of a few per cent in the performance. With the aim of stimulation, of course, the percentage can be converted to a mark. The results of the theme-concluding test papers are also given in grades.

7. In the activity with the work sheet there is a favourable development in the pupils' work culture.

Preconditions of the solution of a task are the accurate reading and understanding of the text. The series of tasks requires that the tasks be performed one after another, in a previously determined order. At the beginning of the work the pupils wished to vary the order arbitrarily, to solve those steps first, to which they considered they could give an answer without thought. In a series of tasks which are closely interdependent logically, the earlier answers systematically form the basis for the subsequent ones. The pupils relatively quickly become accustomed to solving the tasks in order. The characteristics of their work are that they become absorbed in the solution of the problem, they do not give up the struggle readily, they think, they make good use of the auxiliary aids /maps, text-books, etc./, they work with increasing planning and at a better tempo, and they are able to use their time well.

The solution of the tasks demands persevering work and the overcoming of difficulties. A pupil who quickly gives up the struggle remains a loser. In our view, the work culture developed in the independent work ensures one of the preconditions of the

learning at home.

8. The activity with the work sheets makes the work more variable.

The pupils' independent work gives rise to pedagogic situations in which combinations of methods different from the traditional can develop. The collective work is interrupted by the pupils' independent work. The pupils knew that they would often work with work sheets, but they had no idea as to when or with what tasks. At times the work sheet was used to analyse experiments, at others coloured slides, or often the pictures and figures in text-books, or statistical data were processed, or actual objects and phenomena were examined. In every case the pupils were faced with the solution of some new task.

The work sheets were varied in form, and the methods of giving the answers appeared on each work sheet in practically every variation. It was always necessary to examine or investigate something, to be active, and in all cases to think.

In activity with work sheets there is also a variation in the function of the text-book.

The work sheets are indispensable tools of the group work.

The pupils can be trained to be independent only via independent work. The work sheet has proved suitable for the achievement of independent work.

Naturally, the work sheet too is only one possibility in the modernization of education, but the experimental results confirm that it is worthy of further research.

Понятие "листка для работы" и его дидактическая

ценность

МАРИТ НАДЬ

В предисловии статьи перечисляются те мотивы, которые делают необходимым листок среди других современных средств обучения. Автор подчёркивает, что листок – это средство самостоятельной работы в классе, он применяется в так называемом "традиционном" обучении и только в решении одной частичной задачи. Листок не считается совершенно новым в связи между учителем и учеником, а считается средством установления её ближайшей, потому что он делает планомернее и работу учителей, и работу учеников.

По функции автор отличает друг от друга "листка для работы" и тесты: листок служит для самостоятельной работы, а тест для проверки уровня знаний.

В первую очередь автор подчёркивает – среди дидактических ценностей листка – роль его приведение в преподавание и документирует утверждение статистическими данными. Он придаёт огромное значение листку, потому что он регистрирует успеваемость учеников без частных измерений.

Листок имеет и то достоинство, что даёт возможность и для разучивания метода работы.

В работе с листком имеет большое значение "обратная связь" /ученики учителю/, по которой учитель может построить следующий урок на новые информации.

В статье кратко пишется о постепенности в содержании, в форме и проверке листка.

Автор ссылается и на то, что в работе с листком изменяется и функция учебника, и культура работы учеников формируется выгодно.

В усовершенствовании обучения "листок для работы" считается значительным по его дидактическим ценностям.

Der Begriff des Arbeitsbogens und sein didaktischer Wert

Frau Nagy Dr.M. Varga

Der Aufsatz zählt einleitend die Gründe auf, die eine Existenzberechtigung für den Arbeitsbogen unter den modernen Mittel des Unterrichts geben. Es wird hervorgehoben, dass der Arbeitsbogen ein Mittel der in der Klasse ausgeübten selbständigen Tätigkeit ist, der nur auf die Lösung einer Teilaufgabe im traditionellen Lernprozess angewendet wird. Er bedeutet nichts durchaus Neues, er fordert keine dauernde Veränderung in den Beziehungen zwischen Lehrer und Schüler. Es kann als ein Mittel für das Zustandebringen einer unmittelbareren Beziehung zwischen Lehrer und Schüler aufgefasst werden, denn durch seine reichen Informationen ermöglicht es eine planmässigere Arbeit sowohl des Lehrers als auch der Schüler.

Auf Grund der Funktion unterscheidet der Verfasser zwischen Arbeitsbogen und Testbogen ist für die individuelle Betätigung der Schüler, der Testbogen dagegen für die Kontrolle des Wissensniveaus geeignet.

Von den didaktischen Werten des Arbeitsbogens wird an erster Stelle die Rolle der Anwendung behandelt, dann wird die Behauptung mittels statistischer Angaben demonstriert.

Es wird unterstrichen, welche Bedeutung der Tatsache zukommt, dass der Arbeitsbogen die Schülerleistungen ohne besondere Messung registriert und nachprüfbar macht. Ein weiterer Vorteil des Arbeitsbogens besteht darin, dass er auch die Einübung der Lernmethode ermöglicht.

Es wird eine grosse Rolle der Rückkoppelung in der Anwendung von Arbeitsbogen zugeschrieben, denn mit derer Hilfe kann der Lehrer seine weitere Tätigkeit auf die gewonnenen Informationen gründen.

Es wird auch die in Inhalt, Form und Bewertung des Arbeitsbogens zur Geltung kommende Progressivität entworfen.

Es wird auf die Bedeutung der Tatsache hingewiesen, dass sich während der Anwendung des Arbeitsbogens die Funktion des Lehrbuches verändert und die Arbeitskultur der Schüler vorteilhaft gestaltet. Der Meinung des Verfassers nach ist der Arbeitsbogen auf Grund seiner didaktischen Werte in der Modernisierung des Unterrichts bedeutend.

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